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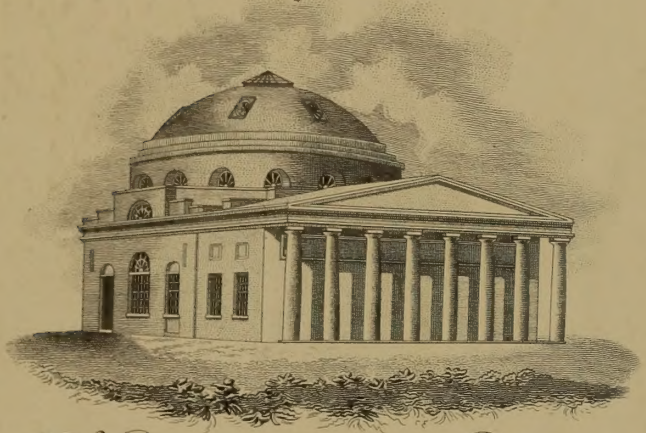

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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UNIVERSITY OF MARYLAND

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UNIVERSITY OF MARYLAND

THESES

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An

Inaugural Dissertation

on

Diphtheria

Submitted to the Examination

of the

Provost, Regents, & Faculty of Physic

OF THE

UNIVERSITY OF MARYLAND

FOR THE

DEGREE of

DOCTOR OF MEDICINE

BY

Alexander Bear

OF

Virginia

The attention of the profession has seldom of late years been more forcibly arrested by any disease than by one, which has been very prevalent and fatal during the past few years, and which is is known under the name of Diphtheria. When we consider the distressing nature of its symptoms, the insurmountable difficulties which too often oppose themselves to their treatment; and the sad fatality by which in many families, child after child has been carried off in spite of every means, which medical skill could devise, we are not surprised at the general feeling of alarm which it has caused, and the notice

which it has attracted from the medical profession. The sudden appearance of an unknown disease — the propagation of another organic poison, as active, more mysterious than, and as deadly as that of Typhus: the introduction into crowded towns and ill-drained villages, of a virulent epidemic, which is at once distressing in its symptoms, rapid in its progress, and intractable under the most careful therapeutic management, communicable by infection and contagion, early located and acting then with severity in confined centres of population; giving brief and doubtful notice of its advent

but having lost the power of its passage was startled the medical world by the destructiveness of its career in Europe and America and has invested it with much importance everywhere.

History — It is a disease of an apparently recent origin, and until within the last few years almost entirely unknown as a distinct and separate disease.

To Bretonneau is due the honor of having first accurately described the nature of the disease which he did in the year 1826 when a disastrous outbreak occurred at Tours in France, Since this time the disease has firmly

established itself in France, and prevailed at intervals, with fatal severity, in various parts of the world. The disease was formerly confounded with various other affections of the throat and fauces, the principle of which were pseudomembranous croup, putrid sore throat, and angina scarlatina. There is certainly a striking resemblance between these allied affections and a positive diagnosis is rendered somewhat difficult, but diphtheria is as little identical with either of these diseases, as they are with each other. Each has its own pathological characteristics, and presents its own peculiar symptoms

sore throat can only be distinguished from the diphtheritic deposit by the closest and careful examination. It is therefore a matter of the greatest importance that we should become enabled to distinguish these diseases from each other as their treatment varies considerably. I shall first attempt to give to give a succinct account of the origin, symptoms and pathological appearances of diphtheria, as seen in its most usual form, and as was observed by myself in a number of cases during the past winter and fall.

Symptoms — The disease is generally ushered in with a variable amount

of feverishness, headache, [illegible] of apetite, pain and difficult deglutition. The tongue is covered with a thick cream like deposit, and if we examine the inside of the throat, we find it somewhat reddened and inflamed. The surface of the tonsils, fauces, and palate will be found to exhibit small, irregularly circumscribed white, yellowish white, or ash colored patches, sometimes [illegible] in a portion of the fauces, and at others scattered over the whole [illegible] of the mouth, fauces, and pharynx.

Sometimes the tonsils, soft palate, and uvula are seen to be simply red and oedematous,

the malady, and unless checked
speedily by appropriate treatment
is destined to spread over the
whole soft palate, and too
often to invade with great effect
the trachea, and larger bron-
chial tubes. In those cases in
which the disease has made its
assault with greater violence,
and which are marked with more
intense general disturbance, the throat
will likewise be found [illegible]
and vascular; but the vascularity
will be of a more dusky char-
acter than that of Erysipelas, and
the diphtheritic exudation will
be found to have invaded the
tonsil and soft palate at a much

earlier period. After these symptoms have existed for a short time a most serious increase in them all take place. The system now begins to feel the depressing effects of the poison and there will be either a [illegible] with excitement of the pulse or in case of still greater severity, a collapsed cold surface. The swallowing, which at first was but slightly embarrassed, now became difficult and painful, so much so, that the patient refuses to make the attempt, either with food or physic, and this constitutes an [illegible] one of the main difficulties in its treatment. [illegible]

generally yield to tonics, especially full dose of Iron, combined with other tonic medicines. Quinine & A liberal, mild, nutritious, and digestible diet, air, and moderate exercise will add much to the cure of the disease

An

Inaugural Dissertation

On

Pneumonia

to The

Provost Regents and Faculty of Physic

of The

University of Maryland

For the

Degree of Doctor of Medicine

By

Alonzo Bartlett

Maryland.

Pneumonia

The word pneumonia is applied to inflammation of the substance of the Lungs. It is therefore a disease, in which the eye fails, & the touch cannot guide us to its true condition, then what have we left, but the ear to give us some information respecting the nature of this great disease, It therefore becomes necessary 1.st for us to understand the anatomical characters, which give rise to the auscultation signs by which (combined with the general symptoms) we are enabled to discover the condition of the lungs at the time we examine them for without a knowledge of these we cannot understand the symptoms

diagnosis, prognosis & treatment.

We generally find three very well marked changes, which the lungs undergo during the course of this disease, viz. 1st congestion. 2nd hepatization, 3rd and last change, purulent infiltration. These different stages each desire separate consideration, therefore we will take them in order. The stage of engorgement or congestion being the first. When we examine the lungs at this time, we find them engorged with blood, their colour is a deep red, they will not colapse when the sternum is opened & notwithstanding there is more liquid found in them than in, still they will not sink in water they are also a great deal heavier

than in health, & they are much more easily torn. If the inflammation now subsides, the lungs will return to their normal condition, but on the other hand, if it passes on to the second stage. the following characters will present themselves, The colour still remains the same, or perhaps it changes to a deeper red, they will no longer float on water, for they contain no air, when pressed or cut, fluid still flows out, but in less abundance They can be torn or cut with more ease than before, for in fact the lungs are more or less rotten, he pass on to the 3.rd or last stage viz. that of Purulent Infiltration, what difference do we now find in the diseased lungs? from the appearances of the last? why the colour

is no longer a deep red. but of
deep yellow. & also when cut thro,
they pour out a fluid of the the
same color. the texture of the lungs
is not as strong, for when we press
them between the fingers, they are almost
reduced to the state of fluid. & if a cavity
is made in their substance it soon
fills with pus. This stage could easily
be mistaken for abscess of the lungs. if
it was not a settled fact, that abscess
of the lungs in this disease is a very
rare occurrence. "Chomel states, that
during an experience of twenty years he
had seen only three, & several hundred
cases examined by Louis, only four
cases of this kind. After running the
three stages of this disease as we have
just done, the question, which natu-
rally presents itself to the mind,

Are the three conditions of this disease distinctly marked in each & every case? The answer is true in the negative, for they are often so much intermingled that it is beyond the power of human judgement to distinguish one from the other. It is a curious, but well known fact, that the right lung is greatly more subject to attacks of this disease than the left. (why this is we know not). Again the lower lobes are a great deal more subject to the disease than the upper. & here again science has deserted & left us in ignorance, for we know not why it is. Such changes as we have described certainly must give signals, by which we are enabled to discover the important processes, which are going on within the cavity of the Thorax.

Therefor if the ear be applied to the chest & the lungs are at this time in the 1st stage of inflammation, what do we hear? A very peculiar sound which resembles the rubbing of one's hair between his fingers, or the wind that passes through the branches of the trees in autumn. This peculiar sound is termed by Laennec, "crepitant-rhonchus" This is the important symptom, for it gives us the first & surest intimation, that inflammation has begun & consequently, life must be lost unless the disease is quickly overtaken by powerful remedies. Let us ask ourselves for a moment, from whence does this peculiar sound come? It is I believe universally acknowledged, that it proceeds from the very smallest branches of the

bronchial tubes & from the air-
vesicles themselves. The belief among
men of science, is that the sound
is caused by the formation & bursting
of little air bubbles. How can we ascer-
tain when pneumonia has passed into
the second stage, or that of Hepatization?
By the difference in the sounds, for when
the ear is applied to the chest, we no longer
hear crepitant rhonchus, but instead
thereof, we have the bronchial respiration
which resembles the cooing of a dove, or the
sound produced, by blowing through a
quill. The lungs at this stage, has become
solid & therefore admits no air into vesicles
& small tubes, from which cause the
peculiar blowing sound is heard. At
this stage the voice is also changed it is
much more resonant than in health, the
patient talks indistinctly, this sound

is called bronchial breathing or bronchophony, the cause is the same, as the bronchial breathing. This period in pneumonia, is the period of the most interest, for it is impossible for us to say, whether the disease will disappear & the lungs return to their healthy state, or pass into the stage of Purulent-Infiltration. Let us suppose that the lungs return to their healthy state, what changes do we then find to take place; why instead of the bronchial respiration a slight crepitation again makes its appearance & by degrees this latter sound becomes more & more indistinct until it is entirely superseded by the natural sound. But now let us suppose it has passed into the 3rd stage, what can we find by auscultation? Nothing with any certainty. It is impossible therefore for us to say positively, whether the lung

have passed into the 3rd stage or not, but sometimes we can discover the condition of the lungs from a portion of them being expectorated.

As we have just finished describing the physical signs, by which pneumonia is distinguished from all other diseases we will next consider the general symptoms, which are of no less importance. As pneumonia is inflammation, it therefore in the majority of cases commences with symptoms of inflammatory fever, viz. with a chill followed by fever, frequency of pulse severe pain in the back & head, & with such symptoms peculiar to itself, as difficult breathing, cough, severe pain in the chest &c.

Pain in the majority of cases is present it is always more severe in the beginning of the disease than at its termination

It is always aggravated by a long breath coughing, pressing on the ribs, or by any sudden change of the patient. It varies in character, for in some cases instead of being acute, it has the character of a dull aching sensation, so that the patient cannot tell exactly where its situation is. It is generally relieved speedily by blood letting, when it is very severe the disease is supposed to be complicated more or less with Pleurisy. In every case of pneumonia the breathing is always quickened, it generally rises from its healthy standard, which is from 15 to 20 in the minute to 40, 50, 60 & even 70. It is more or less accelerated when the patient talks, when inflammation attacks the upper lobes, you will generally find the dyspnoea is much

more severe. Difficult breathing, with short quick respiration shows that the inflammation is great, & therefore is indicative of very great danger. Cough is seldom absent in this disease. It is in some cases very severe in others it occurs with little pain. The cough itself is of very little importance, but the expectoration which always accompanies it, is one of the most certain indications of the presence of Pneumonia. The expectoration does not generally occur until the 2nd or 3d day, when there is thrown up a rusty colored mucous, which is of so great a tenacity, that it adheres to the bottom of the vessel containing it, when turned up side down. When we see this peculiar expectoration & finding it adhereing to the vessel, we may be certain the disease is now in the 2nd degree, or the Stage of Hepatization. If the disease now recedes

we will have the expectoration of a common cold, but if it does not, we may have the red colored sputa to the last, but instead we generally find expectorated a brownish colored fluid, like liquorice water, or plum-juice, which tell us that the disease is now in the last stage, or that of suppuration. Delirium is a symptom which often occurs during the course of Pneumonia, & it is a symptom of very great importance, for it plainly tells us, that the lungs are not duly arterializing the blood, & therefore is indicative of great danger. The symptoms which we have just described are similar to the Physical signs, in reference to combination, for they are often so much intermingled that it is impossible to distinguish between them.

Now these are the symptoms both Physical & general, by which we are enabled to distinguish Pneumonia from all other

diseases, especially those diseases with which it is most liable to be mistaken for, bronchitis, pleurisy, & certain stages of Phtisis, from the first, this distinguished, by the difference of the locality of the pain, difference in the sputa & also the want of crepitant rhonchus & bronchial respiration.

The prognosis of common pneumonia, when the subject is of good constitution, & is not complicated with any other disease, we can with great certainty hope for a favorable termination but when complicated, & the subject is advanced in age, or ill-treated in the 1st stage, the prognosis is very dark. The duration of pneumonia upon an average is from ten to fifteen days. The causes of pneumonia are very numerous, vicissitudes of the weather are the most frequent

stopping of habitual discharges, sudden disappearances of cutaneous eruptions sometimes cause it. It is also associated with Measles & Hooping cough. It is one of the most common diseases in collapse of Cholera. It is more frequent in cold climates, than warm, because cold is one of the most energetic of predisposing causes. Age or sex has no influence over this disease.

To give the exact treatment of pneumonia in every case is a difficult task. It is impossible for us to lay down a treatment, which can be followed out in every case, for what will cure in one case, will kill in another, what then have we to guide us? Our judgement. he must first be well acquainted with the condition of the patient we have to treat. 2nd he must know the

character of the disease, that is in reference to the extent & complications. It therefore becomes essential for us to consider separately the treatment of these different grades of pneumonia. which we meet with in practice ~~by~~ Acute & Typhoid.

The first great remedy, which we should use in common Pneumonia is bleeding, either general or local. We meet with no disease in the practice of medicine, which will bear the loss of blood better, than this. This remedy is not only beneficial by abating the inflammation, but it is also beneficial by reducing reducing the labor of the lungs, for all the blood that is circulated within the body, must of necessity pass through the lungs before it returns again

to purfore its duties through the whole system. The quantity to be taken must be regulated by the pulse. it varies very much in different cases. If the symptoms are not relieved by the first bleeding it often becomes necessary to repeat it until we find a change in the condition of the disease, but we will find in many cases that the disease is assisted by the first bleeding We have two great aids to Blood letting, viz. Tartar emetic & mercury. The first of them, like blood letting show their greatest powers in the first stage, & mercury in the second stage. After the bowels have been open, & the circulation relieved by the use of the lancet, we then begin to treat the disease with

tartarized antimony calomel & opium in combined doses of 1 gr of opium 1/3 gr tartar emetic & two or three gr calomel, and by keeping the bowels open by jalap, salts, or any suitable pergative, if pain still continues after this treatment, we then use local bleeding, by which the patient is often speedily relieved. Often under this treatment we have just given the disease will subside. but if it does not, then what treatment should we rely upon? The same with the following changes instead of giving calomel opium & tartar emetic at night, we must now give it in small quantities repeated every one, two, 3 or four hours. If the symptoms continue, we must speedily obtain a mercurial impression

by using mercurical ointment externally as well as calomel internally in doses from three to four grs. combined with opium every three or four hours until the gums are affected. At this stage of the disease a large blister applied to the chest, often will be of great advantage, Expectorant medicines are useful by relieving the cough, such as squills, Senecas & Epecac. The patient often requires stimulating medicines at this time, the best are carbonate of ammonia & the alcoholic, This is the treatment that is used by the best medical men in this form of the disease, but other means have been recommended with more or less success, such as tartar emetic in very large doses. acetate lead, digitalis. muriate ammonia &c

The difference of treatment of bilious Pneumonia & that of common is not very great. The differences are, that bleeding-letting cannot be carried so far, Calomel & antimony can be carried to a farther extent. Blisters are called for at a much earlier period & the use of Sulphate of Quinine, which is contra-indicated in the common, with these exceptions the treatment is the same. In Typhoid Pneumonia the treatment is very different from either the bilious or the common form. For instead of general bleeding we must be very cautious how we deplete locally & instead of evacuants, stimulating medicines are often called for from the first, general the bowels must be found by Calomel

and jalap & afterwards the patient should be put on the use of Ipecac & calomel until the gums are touched, he should then keep on the watch for signs of prostration & as soon as they make their appearance, stimulants should be used, for this is the great end to be feared, The best are carbonate of ammonia, Sulphate Quinia. Brandy & oil of turpentine, The diet should be nutritious.

An

Inaugural Dissertation

On the Circulation

Submitted to the Examination

of the

Provost Regents & Faculty of Phy.

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

John Henry Cichon

The circulation of the blood in young children, seemingly differs from that of after life, in several respects. While some of vessels in them, are in proportion larger, others are of less capacity. Undoubtedly, nature has afforded the most just and perfect regulation, designed for growth and general development. At an adult age, there is an exact relation to be marked in different vessels. The waste of tissue is to be supplied, and when this is accomplished, there are corresponding systems to remove any

redundancy; but in children who are rapidly growing, a greater proportional amount is needed, and we discover a greater activity in the arterial system. Blood is forced into all parts of the body, in amount, proportionably to the capacity of the vessels, and this capacity is controlled by the size and importance of the part to be supplied. Thus the body of an infant appears to have been unequally developed; the head for instance is very large, and in consequence of the great

volume of the Liver, the abdomen is puffed, while the Extremities inferiorly are Small and Shrivled on account apparently, of the diversion of the blood from the iliac to the umbilical arteries, peculiarly incident upon foetal circulation.

It is manifest, that the growth of a child's body must be unequal, whilst approaching that of adult proportions. The head for instance, and some of the viscera, remain nearly stationary, while the limbs and trunk

are gaining; so that as the blood is sent to all parts, the vessels returning the blood from those which require the least growth is larger; and smaller where it demands more positive assimilation. When the child attains the form which it is ultimately to wear, these peculiarities may be found to be lost

Our views may be more explained upon this subject, in examining the livers and heart in the Foetus, and observe the course of the Channels

through which the blood traversed in it.

In describing the course of the blood, it is difficult to determine a point at which to begin. But whether we select the heart, which is seemingly the source of life; or the placenta which in reality first supplies the blood; it is not difficult to trace the flow, until we reach a point of starting. We think upon the whole, notwithstanding some inconveniences, ~~xxx xxxxx~~ it more proper to [illegible]

mence at the placenta, as by it, the blood is first introduced into the foetal system.

The umbilical vein, thus passing off from the placenta, enters the navel, and passes through or over the falciform ligament, into the fossa umbilicalis of the liver; thence traversing along the great fossa, its branches diverge right and left, thus subserving the office of an artery, till it reaches the fissure situated at the posterior part of

the liver, where it derives the name of ductus venosus; through which a portion of the blood is directly transmitted to the right side of the heart. The foetal liver is very voluminous and vascular; at the termination of the third month, almost the whole of the abdominal.

It possesses other systems of blood-vessels; independent of those already mentioned. It receives the arteria hepatica for its proper support; the

portal veins, especially to supply the secretion of bile, and the renal canal hepatica, which returns the blood from the portal and umbilical Systems

In addition to this, if we consider the lymphatics, the biliary ducts and nerves, a just conception may be gained as to the substance and vascularity of this organ

It might often happen that the liver should derive its blood from

two opposite sources; the left side receiving its supply from the umbilical vein; and right from the vena portae; but subsequent to birth, when the umbilical vein and ductus venosus have become obliterated, its branches are supplied from the portal system; so at this period the current tends in one direction; for the hepatic artery and portal vein, previous to entering the liver, are contained in the same sheath, and pass on, [illegible] another.

The vena polarum enters the liver at the sinus formed by the lobulus spigelii and processus caudatus; and proceeds to the great transverse fissure, which traverses above the lobus spigelii and lobus quadratus. It bifurcates at this point, transmitting its limbs to the right and left sides. The right branch is freely distributed to its side; but the left, in the foetus, is continuous with, and recognised as a branch of the umbilical vein

It is by this, that the [illegible]
ical branches are [illegible]
and kept of utility, sub-
sequent to the [illegible]
tied; the blood taking a
retrograde course. The liver
is abundantly furnished
with blood; and the amount
which was imposed in its
passage, and [illegible]
to circulate through its
vessels, is accumulated
by the venae cava hepatica;
and afterwards [illegible]
into the venae cavae [illegible]
ferior; while a greater flow
seeks a more direct route
through the [illegible]
is poured into the ascending

Cavas, where it attaches itself to the right auricles of the heart.

Arterial blood has therefore been trace from the placenta, accumulating in, and passing gently through the liver; until as from a reservoir, it seeks and entrance to the heart. This arrangement we perceive to be of perfect utility, for inasmuch as the maternal and foetal placenta are in such just apposition as to favour a process like that of Secretion; it is manifest that without the [illegible] of

the large liver, as a receiver, the amount of blood from the placenta should not be inadequate to the demands of the child.

As there is no great amount of bile secreted at this period, it will be shown that the vessels proper to the portal system, perions to reaching the transverse fissure of the liver, are in comparison small and the blood passes slowly; but afterwards the vena portae divides; Each br[illegible]

ing a size [illegible]
that of the primary [illegible]:

Therefore as the left branch is continuous with a branch of the [illegible] [illegible] it seems not difficult to suppose that the principle portion of the blood, is supplied from this [illegible].

It is not easy to infer that all this blood is [illegible] to support the [illegible] exclusively, whilst it continues there; for the [illegible] artery large and strong [illegible] from the [illegible] artery goes to moist the

Substance of the viscus:
It seems therefore that this great reservoir is for the purpose of altering in some degree, and influences the circulating mass, which pervades the entire system; but we proceed with the current of the blood. Instead of during its powers between the systems, as in the adult, the pulmonary and aortal circulation.

The foetal heart directs all of its energy, as a single organ, in perfecting its blood in one channel;

Therefore its power is in greater proportion than in the heart of an adult; both auricles and ventricles acting at the same time and on the same volume. The manner in which this action is performed is remarkable for its beauty and simplicity. We will observe how it is effected by means of the foramen ovale and ductus arteriosus. The first being somewhat of an oval opening situated at the post sinus part of septum,

which separates the two auricles. This foramen can be viewed upon opening the right auricle; and around it may be observed a mass of muscular fibres which appears to be derived from the base of the Columi, or Musculi pectinatti. Sometimes is termed the Columnae foraminis ovalis and serves for the purpose of strength ening the holes; and probably to carry a portion of the blood from its direct route to the ventricle, compelling

it to pass through the ventricle foramen. On the left side of the septum there is situated a thin membrane, so constructed as to act as a valve, preventing any regurgitation, affording positive evidence that its current is from the right to the left auricle. By this contrivance, when the right auricle is full of blood, a portion of it passes directly through to the right ventricle; but a large proportion seeks its way through the foramen

cuate into the left au-
icle. The contracting of
the auricle fills its left
ventricle, from whence
the aorta arises. The blo
d which was forced
into the right ventricle,
upon its contraction,
ascends into the pulmo-
nary artery; but the
lungs of the foetus being
in a state of collapse,
a very minute quantit
ity passes through them,
and the principle
flow is transmitted
immediately to the aor-
ta, through the ductus
arteriosus. Through the

of the foramen ovale, the two auricles are made as one, and filled simultaneous; the two ventricles, by means of the ductus arteriosus also act together, and made as one, both throwing their blood into the aorta; and; in this way, the double heart, which has been prepared for future life, when blood must pass through the lungs, is made a single heart for the foetus, whose blood is prepared by the Mother. We cannot sufficiently admire the Sim-

plicity and wisdom of this structure, nor the ease with which nature converts the single-heart of the foetus into a perfect double heart of a breathing animal. For when air is admitted into the lungs, the contraction of the right ventricle fills the pulmonary artery, which is better adapted to receive it, than the ductus arteriosus; this duct, deprived of its blood and pressed upon by the expanded lungs, closes; while the volume traversing its new route is acted upon by in the

lungs, relieved of its carbon, furnished with oxygen, and returned by the pulmonary veins to the left auricle. The valve of the foramen ovale is pressed down, and all that the right auricle contains is compelled to pass into its proper ventricle; thence, into the lungs; assigning the right side of the heart to the lesser circulation; while the left auricle and its ventricle remain to act alone on the aorta; thus becomeing the center of the great circulation, or that of the body.

The next peculiarity exit-
ited, is in the aorta, aft,
its bifurcation, as was hin-
ted at in the previous part
of this paper, whilst speaking
of the appearance of Chil-
dren. We remarked on the
air unequal development:
and this we conceive
to be the cause. The iliac
arteries, given off in the foe-
tus, are very small; so small
that we only recognise them
in the adult, by their loca-
tion. The corresponding veins
therefore, are small and the
supply of blood entirely inade-
quate to rapid growth. For
several years subsequent to birth

the legs of children given less in proportion than their trunks. After the iliacs are given off, the two main branches of the aorta descend into the pelvis; rising again on the side of the bladder, proceeding towards the navel; where uniting with the umbilical vein, they entwine around each-other, and pass on to the placenta in one sheath.

After what has been observed it is not difficult to appreciate the changes that take place in the circulation subsequent to birth; and in what particulars, the vessels of a growing child, vary from those of the adult.

An

Inaugural Dissertation

on "The Pulse"

submitted to the examination

of the

Provost, Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Aaron Friedenwald

Baltimore

Maryland

system the influence usually transmitted to the heart and arteries becomes altered. Anaemia will serve to illustrate this fact. The brain in this disease, recognizes the impaired condition of the blood which if not oftener circulates through the system than blood of normal quality will not serve the purposes of life. The brain therefore sends an influence to the heart which makes up in some degree, in an increased number of contractions for the impaired condition of the blood. There are conditions of the apparatus of the circulation illustrating this principle as for example when there exists

a contraction of the aortic orifice; the ordinary force of the heart's contraction would be insufficient to promote the required circulation of the blood; the brain feeling of this condition sends an influence to the heart forcing it to contract more powerfully and by this means the ill effects of the organic lesion will to a considerable degree be obviated. The brain and nervous system establish a sympathy between the various organs by which can be explained the disturbed condition of the circulation in [illegible] of the important organs. The influence distributed by the brain through the medium of

the nervous system vary according to those received by it. During health nought but healthy impressions are made upon the brain and those which emanate ~~from~~ therefrom direct the various organs in the healthy performance of their functions. At an abrasion, when it becomes morbidly impressed, the various organs are morbidly influenced. The disturbance which we notice in ~~of~~ the circulation during inflammations though much depending upon this is not entirely due to it; much of it may be attributed to the altered condition of the blood and sometimes much of it may be due to mechanical

causes, as when the heart becomes dislodged by an effusion.

Having considered the various elements exerting a controlling influence upon the pulse, a few remarks concerning its value as a diagnostic [illegible]. The evidence which we receive through the medium of the pulse may be divided into the positive and negative. Among the positive may be classed that which points out a particular state of the system, as excitation or depression; among the negative that which denies the existence of those conditions which the symptoms would indicate. In both

of the modes just mentioned can the pulse alone establish a diagnosis but when consulted in connection with other symptoms it becomes of the utmost importance. For instance a patient complaining of pain over the region of the liver through increasing under the influence of the circulation be found tranquil there would be great probability that he was not suffering from hepatitis but that his malady was of a nervous character a curious illustrating most beautifully how important the pulse sometimes becomes in the diagnosis of disease is related by Dr Mayo in his

work on the diseases of women which I take the liberty of quoting." On the fifth of July, 1828, I was called to see a mulatto woman in Water Street aged about thirty years. She was lying upon her back; the knees were drawn up, and she was supporting the bedclothes with her hands, lest they should press upon the abdomen, which was so exquisitely sore and tender, that she could by no means endure their weight or pressure. She had a short, quick respiration, on account of the pain which any extensive movement of her diaphragm communicated to the abdomen, and which made

~~[illegible]~~ it necessary for [illegible] to restrain the respiratory movements as much as possible." These symptoms suggested to the Dr the existence of Peritonitis. He was however surprised to find the pulse instead of being frequent tense and corded nearly natural. This circumstance made him suspect Prolapsus Uteri as the cause of her distress a diagnosis which was subsequently established by an ~~diagno~~ examination per vaginam. The patient was instantly relieved upon the organ being placed in its normal ~~condition~~ position.

Too strict a reliance on the pulse as an indication, as to the violence

and extent of a disease would in some cases lead to the most erroneous conclusions. The system may sometimes be afflicted with serious disease and yet the pulse may deviate but little from its normal character. I can find nothing to illustrate this better than a reference to a case of Yellow fever which fell under my observation. The case to which I allude was treated at the Balto Infirmary during the summer of 1858. I saw the patient during the deluding remission so characteristic of this disease. During this stage the patient poison was raging in the system of the patient, which was evidenced

-y the yellowish hue of his skin, by a suppression of urine and other symptoms; the poison so intense as to cause his death soon after this yet during this stage the pulse alone would not have suggested the existence of any disease, so nearly natural was its character. Instances, however, in which the pulse misrepresents the general condition of the system must be regarded as exceptions.

The pulse may be defined as an alternating expansion and contraction of any artery which it may be convenient to consult, the former pro-anced by the contraction of the left

ventricle sending the blood through the system; the latter is the reaction of the artery when the blood is forced into it. The manner in which we are enabled to characterize the various forms of pulse are the number of pulsations occurring in a given time, their force, volume duration and their relation to one another. There are many circumstances which cause these to differ in various individuals even in health as age, sex, position, idiosyncrasy etc. The pulse beats at birth from 130 to 140 times in a minute, during the second year from 100 to 120 times during the 7th year 90 times at puberty 80 times during

middle age from 65 to 75 times and during old age from 55 to 65 times. The above estimate exhibits that the pulse becomes gradually less frequent with developement; and though it may be liable to ~~many~~ many exceptions it probably proximates the truth as nearly as any general estimate can. It is estimated that the number of pulsations of women exceeds that of men by five or six in the minute. The pulse is less frequent and has less force during the hours of repose than during those of activity. Some persons present that peculiarity of constitution in which the pulse is unusually slow, others in which it is unusually frequent,

The deviation which the pulse proceeds from its natural number of pulsations is designated by the terms frequent or slow that from its force by strong and hard or weak and compressible; that from its volume by full and ~~large~~ or small, empty & ~~small~~ contracted; that from its duration by quick or languid; that from the natural relation that the pulsations bear to each other by irregular & intermittent. From the number of pulsations in a given time we can gain less information than from the other qualities of the pulse which have been mentioned: but we find the pulse sometimes

frequent both in excitement and depression. The frequency however as used in the pulse in extreme conditions of depression is not marked by that found in any state of excitement. The frequency of the pulse therefore when consulted, must be coupled in conjunction with its other qualities; this is however not the only quality of the pulse where this precaution becomes necessary and hence it is expedient when considering the various forms of pulse that each form should denote its character in various particulars This consideration forms the basis of the classification which will now be described

Frequent, hard, resistent tense, firm, or sthenic pulse. These are the various terms by which that form of Pulse is known which occurs in parenchymatous inflam-mations & fevers when they attack vigorous constitutions. The finger in this form of pulse feels that it is struck more forcibly than by the natural pulse and though a great deal of pressure may be exerted upon the artery blood will continue to traverse its channel to more or less extent. Of this form of pulse there will be found various degrees, according to the vigour of the constitution, extent of the inflammation, and the anatomi-cal characters of the part inflammed

This form of pulse is increased in frequency sometimes to 120 beats or more in the minute. When its frequency becomes less the disease may be supposed to have taken a favorable change; and on the contrary when the pulse increases in frequency the inflammation may be expected to have undergone a proportionate increase. This form of pulse indicates the use of the lancet bearing depletion well; and when sufficiently early employed almost always affords relief to the patients suffering. Depletion, however, is not always required nor would its employment be always judicious. The treatment

must be regulated by the degree to which the pulse manifest its peculiar characteristics. sometimes nauseants will act sufficiently prompt and powerful, at other times cathartics or diaphoretics will answer the purpose very well. The stage of the disease will act as a guide in the selection of the above mentioned remedies. In the onset of the disease the lancet is no doubt the best means we can employ to subdue the existing inflammation; if this pulse has existed for several days, the lancet is not so admissible.

Frequent, contracted, corded, quick Pulse.
In this variety of pulse the artery contracts strongly upon the blood it contains thereby becoming diminished and imparting to the finger the sensation as were it resting upon a wire. This pulse occurs in inflammations of such parts where diseased condition inflicts great irritation on the system. It is most frequently met with in inflammations of serous membranes. Its frequency does not differ much if at all from the frequency of that form of pulsation previously considered. The duration of each pulsation is very short and gives indicating irritation

it has often been described as an angry pulsation. The contraction of an artery upon the blood is produced by two causes; the elasticity of its coats and the contractility of its muscular fibres; in the form of pulse being now considered the latter greatly predominates probably assuming a spasmodic action. The indications in this form of pulse is the exhibition of sedative remedies. The most appropriate of which is bleeding which probably exerts its most controlling influence over the conditions which produce ~~prod~~ this form of pulse. Frequent, full, large open ample pulse. The peculiarity of this form of pulse

is that though denoting excitement its increased force is not very decided; its volume is large but does not offer that resistance to the finger which is offered by the two forms of pulse which have been described. The artery itself seems to participate but little in the prevailing excitement, and often conveys that sensation to the finger, which would denote its being in a more or less flaccid condition. This form of pulse will often occur in inflammations when they attack strumous constitutions a peculiarity of constitution, which almost always exerts a subduing influence on the pulse even in the

most serious and extended inflammations. It admonishes us to be guarded in the exhibition of sedative remedies when employing them to note carefully their effects. This form of pulse occurs also in inflammations attacking those, whose health has been injured by serious attacks of disease. In treating the conditions giving rise to this form of pulse, we must constantly bear in mind that the depression which usually follows excitation, is likely to mark its advance earlier than in other conditions and when it sets in is of more serious a nature.

Slow, full, strong pulse.

This form of pulse is often designated as the apoplectic pulse being frequently noticed in apoplexy and the conditions predisposing to it. The most distinguishing feature of this pulse is its slowness in relation to its force. The pulsations greatly diminish in number: sometimes occuring not oftener than 25 ~~beats~~ ~~times~~ times in a minute, and even a greater diminution has not unfrequently been known. The finger is struck forcibly the artery is distended, and the fact that the heart is struggling under a great burden is at once suggested. This pulse is by no means peculiar to apoplexy, being absent in nervous apoplexy.

occuring frequently in general Plethora
The abstraction of blood exerts here a
good influence. When attending
general Plethora bleeding can exert
only a temporary influence; the
causes favoring its introduction must
be carefully attended to.

Frequent, weak, small, easily, com-
pressible Pulse.

This form of Pulse indicates general
depression. Its minimum frequency
is greater than that of any other form
of Pulse becoming sometimes so rapid
to be counted: when this occurs the
Prognosis is rendered unfavorable.
The minimum frequency may I
think be estimated at 160 beats

in the minute. The impression made against the finger is very slight and the artery bounds a small volume. Slight pressure exerted on the artery completely interrupts the onward passage of the blood. This form of pulse attends the conditions attending produced by hemorrhage, copious discharges the ravages of long continued disease the latter stages of the fevers - direct constitutional irritation or shock. In the extreme form of this variety of pulse the pulsation becomes so weak as to be imperceptible to the finger. From this extreme depression the system frequently reacts, and often becomes

exhausted in the effort, the pulse pre-
-sents a changeable character.
When the depression is exerted princi-
-pally on the nervous system, the fin-
-ger will often perceive a double beat;
the pulse is then called the dicrotic
Pulse. It is frequently met with in
continued fevers. It is obvious that
in the conditions producing this form
of Pulse, stimulants are urgently de-
-manded.
Irregular Pulse. Of this form of
Pulse there are two varieties; the force
of the various pulsations, or the calibre
of the artery ~~of~~ during the pulsations
may differ; and again there may
be no regular recurrence of the

pulsations one or more pulsations being occasionally omitted; in the latter case it is called an intermittent Pulse. This Pulse is sometimes met with when there exists no disease, more frequently however it denotes the presence of serious disease being often an attendant on heart disease and disease of the brain. Derangement of the digestive organs also occasionally produces this Pulse. Being produced by conditions differing so much from each other a knowledge of their correct treatment can only be ~~to~~ arrived at when the various other symptoms which the patient may present are carefully

consulted.

Though feeling that I have given but an incomplete account of the subject of this thesis, I plead for ending abruptly rather than incur the hazard of becoming tedious

An

Inaugural Dissertation

On Cotton

Submitted to the examination of the Provost, Regents, and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine

By

Wm. H. Hodges.

of Virginia

1860

Carbon.

In the diamond alone it exists in its purest and most perfect state. We are ignorant of the means which nature employs to bring it to that state. It may be the work of ages, to purify, crystallize and unite the particles of carbon in the form of diamond. Its composition was denied it by chemists from the fact of its possessing in common with many combustibles the power of refracting light strongly. It is found in only two places on

the Globe in alluvial deposits of Sand &c viz: in India and Brazil. It is the hardest known substance - of a dark smoky color, has an octohedral form, and gives a concoidal fracture and a serrated edge, which makes it valuable to the glass cutter. It is remarkable for being least combustible of all known substances with few exceptions, and is therefore used for crucible furnaces. It exists in large quantities in the mineral kingdom, and forms the most abundant constituent of animal and vegeta-

ble matter. It forms the substances known as plumbago or black lead, anthracite and bituminous coal, coke, animal charcoal, and carbonic acid, which is a constituent of the atmosphere. United with oxygen and a base, it forms the carbonates, among others the carbonate of lime which is one of the most abundant mineral species.-

Charcoal forms a considerable part of the solid matter of all organized bodies but is most abundant in the vegetable kingdom, and chiefly ob-

tained from wood, when oil and water (which are the constituents of vegetable matters) are evaporated. The black, porous, brittle substance that remains is called charcoal or artificial carbon is properly called an oxide of carbon. All carbon is not black.

Many substances consisting of carbon are remarkably white; cotton for instance is almost wholly carbon. Carbon may be obtained in a state approaching purity in several ways. One way is to expose lampblack to a free red heat in a closed

vessel. Another, by passing the vapor of volatile oil through a porcelain tube, whereby the hydrogen and oxygen of the oil will be dissipated, and the charcoal left in the tube: also, by exposing sugar, or other vegetable substances which leaves no ashes when burnt, to ignition in close vessels. Charcoal is obtained by the partial combustion of woody fibre which removes all except the skeleton of carbon. The wood is piled up, and covered over with clay leaving only a few air holes

which are also closed after the combustion has gone on for a short time. Wood is composed of Hydrogen, Carbon, and oxygen, the first being the most combustible, and if the fire be allowed to burn only until the Hydrogen be removed the Carbon will remain pure. It absorbs moisture from the air &c, so as to increase fifteen per cent in weight in an hour. It absorbs ninety times its weight of ammonia. Animal charcoal consists of phosphate of lime and charcoal formerly obtained from ivory, but now from burning [illegible]

in a closed vessel which admits only enough oxygen to cause the escape of the volatile matter and leaving the charcoal untouched. It is used principally as a purifyer. Charcoal does not blaze on account of the hydrogen having been nearly expelled in its preparation.

Oxygen when in a state of combustion with other substances loses in almost every instance its respirable properties & when combined with carbon, is not only unfit for respiration, but is extremely deleterious if taken into the lungs. This accounts for the un-

wholesome fumes of burning charcoal. By the combustion of charcoal it generally combines with oxygen of the atmosphere for which it has a great attraction, and flies off in a gaseous state, called carbonic gas or fixed air. This carbonic acid gas produces many unhappy accidents at the opening of cellars or places where wine, cider or beer are suffered to ferment. The famous lake Avernous in Italy, by modern Italians called Lago di Tripergola, and which Virgil makes the entrance of Hell, exhaled so large a quantity of carbonic

acid gas, that birds could not fly over it with impunity.

Carbon is an element in the oil, fat, albumen, fibrin, gelatin, bile, and mucous. This element likewise exists ~~exists~~ in the impure blood in the form of carbonic acid gas. Carbon is obtained from the food, and discharged from the system by the secretion and respiration. The principal substance of a vitiated character in the dark colored blood is carbonic acid, and since there is no chemical affinity between the oxygen and nitrogen of the air, the former readily unites with some

of the elements of blood. Hence whenever blood is presented to the air in the lungs, the oxygen leaves the nitrogen, and becomes mixed with the circulating fluid. It is known that membranes possesses the property of allowing fluids and gases to pass through them in either direction, and also to permit two fluids through them at the same time. This property is designated endosmose, when a fluid passes from without a body inward; and exosmose, when the reverse takes place. One of the most striking instances of this in the human

system, is known in the same
where carbonic acid and water
pass out through the same
membrane of the branchial tubes
and air cells, and the oxygen of
the air enters the blood through
the same membrane. — In the
process of inhibition the oxygen-
ation of the blood is much more
readily, and faithfully accomplish-
ed; in as much as by the im-
mense number of branchial tubes
and air cells a larger amount
of blood is exposed to a greater
portion of air, than if the blood
were directly laid open to the
atmosphere in consequence of the im-

were immediately transmitted through it. Since the function of respiration is to free the system of superfluous carbon and hydrogen, by union with the oxygen of the air, it follows that the greater the amount of the products to be eliminated, the larger the quantity of oxygen will be required to effect this purpose, as we find it to be the case with those who consume large quantities of food. The quantity of oxygen daily consumed through the lungs of an adult is about 32.5 oz. and the carbon in the food 13.9 oz. But in order to com-

vert this whole amount of carbon [illegible] carbonic acid, [illegible] off through the [illegible] skin, 37 oz of oxygen are required: the remaining 4.5 oz being absorbed by the skin. [illegible] remain the same [illegible] the amount of oxygen in the inspired air is diminished, the superfluous carbon will induce disease in the system, as is the case with those persons who are limited in their supply of air of a proper quality or quantity, and consequently [illegible] less food than those who are abundantly supplied with air of the proper standard of health;

and in children, who proportionably consume more food than adults, and who are more active, thereby causing a more rapid circulation of blood, and consequently the removal of more superfluous matter. Also if the carbon does not have a requisite supply of oxygen from the air, or other sources, the body becomes emaciated, although nourishing food may be used. And on the other hand, if there be a diminished supply of food, but an abundance of atmospheric air, leanness and emaciation are sure to follow, owing to the fact

that if the oxygen has no waste carbon from the body to unite with, it combines with the fat and some other soft portions of the body, which the Author of Nature seems to have provided for this very purpose, as is seen in case of hibernating animals, who enter their places of winter abode sleek and fat, but crawl out in the spring extremely deprived of their fatty matter, but also with a great diminution of all the softer parts, which have given up their share of carbon to support animal heat. — One important cause of consumption in

febrile diseases is the greater rapidity of the pulse and respiration, which consume more carbon than is afforded by the scanty supply of food that is taken, although profuse perspiration, which almost always occurs in some stages of fevers, which greatly diminishes the full state of the body.

Again, carbonic acid and water have a stronger affinity for atmospheric air than for the other elements of the blood of the blood, consequently when they are brought in contact with the air in the lungs, the carbonic acid and water leave the other constituents

of the blood, and unite with the air. in ~~the lungs~~. In this way the dusky, or impure blood is relieved of its impurities, and becomes red or pure blood, which contains the principles so essential to life. The presence of Carbonic acid, and watery vapor in the expired air, can be proved in the following experiments, 1st. Breathe into lime water, and in a few minutes it will become of a milky white color. This is owing to the carbonic acid of the breath uniting with the lime forming the Carbonate of lime. 2nd Breathe upon a cold dry mirror for a few min-

ches, and it will be covered with moisture. — It is familiarly known that a taper will not burn where carbonic acid exists in any considerable quantities, or when there is a marked deficiency of oxygen. From this originated the judicious practice of sinking a lighted candle into a well & pit before descending into it. If the flame is extinguished respiration cannot be maintained, and life would be sacrificed should a person venture in until the noxious air is removed. It is the action of carbonic acid upon the respiratory organs

that gives rise to a phenomena frequently seen in mines and caves. As man may enter these subterranean rooms and feel no inconvenience in breathing, but the dog that follows him falls apparently dead, and soon dies if not speedily removed to pure air, arises from the fact that this gas is heavier than air, and rests at the bottom of the room or cave.

While it is true that carbonic acid possesses properties that render it unfit to be breathed, it is, notwithstanding, productive of many agreeable effects when conveyed into the stomach. It was

the sparkling property of mineral waters, and fills the bubbles that rise when beer or cider is fermenting.

Carbonic acid was sometimes used by the ancients as a means of committing suicide and is now ~~sometimes~~ often resorted to in France for that purpose.

The Rev: Henry Bascom says: "Chemistry, with its firetongs of the Galvanic battery, teaches that the starry diamond in the crown of kings, and the black carbon which the peasant breads beneath his feet,

are both composed of the same identical elements; analysis also proves that a chief ingredient in limestone is Carbon. Then let the burning breath of God pass over all the limestone of the earth, and lo! its mossy layers crystalize into new beauty; and lo! at the Almighty fiat the mountain ranges flash into living gems with a lustre that outlasts midnight hour, and eclipses all the stars."

An

Inaugural Dissertation

On Anæmia

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for the

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By

Washington M. Hilleary

1862

Anaemia.

This is a disease characterized by a deficiency or morbid density of the blood; but it is not necessary that there should be in all cases a deficiency in the quantity of the circulating fluid, for very often there is as much in the disease, as in health, and sometimes even more.

But in these cases the morbid constituents of the blood are not in their normal proportion, the serum being in excess.

This condition is a frequent attendant upon other diseases which impair the functions of digestion and assimilation, or in any manner deprive the

system of its due supply of blood, but it sometimes occurs independent of any such cause.

The symptoms of Anæmia when the disease is fully formed are very striking. The skin, lips, tongue and mucous membranes in general are extremely pale — the conjunctiva is of pearl whiteness and the whole surface appears bloodless.

Frequently the face assumes a bloated and waxen aspect, and with this change of colour there is often edema of the face, especially of the eyelids, sometimes the lower extremities are also apt to become edematous.

The patient is weak and unable

to bear much exertion.

The circulation is weak and irregular, the pulse is feeble, frequent and easily compressed, evincing a weakened condition of the heart's action.

Palpitation of the heart is a very common symptom. It is sometimes continuous, but more generally irregularly intermittent, and may be caused by the slightest exertion either mental or physical.

Respiration; though quiet and natural when the patient is at rest, becomes accelerated, irregular and even painfull under exertion.

The nervous system is frequently much disordered. Vertigo abnormal sounds and faintness are very

convulsive and spasmodic action of the muscles. Sometimes amounting to convulsions frequently occur in the course of the disease. Distressing and obstinate neuralgic pains in various parts of the body occasionally attend this complaint.

The various secretions are sometimes diminished, and associated with this condition is defective secretion from the skin, kidneys and other parts of the body.

In other cases, on the contrary there are copious and exhausting sweats, and profuse discharge of urine. In females, the menses are almost always deficient and in many instances altogether wanting.

The secretion of the liver is also often scanty; and constipation with unhealthy evacuations from the bowels, are very common attendants upon this disease

Anaemia is very often associated with various organic affections some of which act as causes and others as effects of the disease

Hypertrophy and dilatation of the heart are very common results of the disease, the former caused by the excessive action and the latter the defective nutrition of the organ

The blood when drawn is formed to be thinner and of lighter colour than in health and upon coagulation it exhibits

an excess of [illegible], the clot is small and firm, and of a light red colour instead of the deep red colour of health, and frequently presents a cupped and buffy surface.

The cause of the buffy coat is the relative excess of fibrine over the red corpuscles, these being diminished not only in proportion to the watery part of the blood, but also to its other more solid constituents.

This is the case in [illegible] occasioned by the sudden loss of blood by hemorrhage, when all the ingredients are lost in the same proportion, because the organs concerned in the formation of blood remaining, fibrine in the

system much larger supplies of albuminous and fibrinous substances, than of those which constitute the red corpuscles.

Chlorosis is a form of this disease the subjects of which, are young females, often caused by indigestion and constipation, and usually comes on gradually.

The appetite is defective and irregular, sometimes being excessive and at other times entirely wanting.

Early in the disease, there is great depression of spirits, languor and an indisposition to make any exertion either mental or physical.

The countenance is depressed and the complection gradually becomes pale and waxen.

The [illegible] are diminished in amount and altered in colour.

The nervous system is strikingly disordered, as is evinced by the hysteric symptoms that are always present.

On examination after death the arteries and veins are found to be either entirely empty or containing a small quantity of serous fluid; serum is often found effused in the pleura, pericardium, peritoneum and cellular tissue; the heart is soft flabby and frequently dilated and various other organs are often found to be in an unhealthy condition, as the stomach, liver and spleen; when such is the case they are supposed to be the

cause of the morbid state of the blood.

The causes of this affection are very various. The lymphatic temperament is thought to predispose to the disease. The exciting causes are such as directly lessen the amount or diminish the necessary production of blood, hemorrhage frequently repeated at short intervals, and thereby draining the system of its vital stimulus always produces the complaint.

Excessive secretion from any of the secreting organs, as the [illegible] bowels and kidneys, any thing that interferes with the processes of digestion and sanguification, or the want of sufficient materials for the-

elaboration of blood may produce the disease.

Insufficient or indigestible food, the habitual abuse of stimulants, excessive or insufficient exercise and debilitating habits of any kind are very common causes of anemia.

Malarious fevers are among the most frequent causes of this complaint; through the changes which they so often produce in the liver and spleen.

This disease is very easily managed in its early stage, when it is not complicated with any structural disease, and the patient can be removed from the influence of the exciting cause.

Under these circumstances the patient may be cured or greatly released in a very short time. But on the other hand, when the patient is unable to remove from the cause producing the disease or does not receive proper treatment, it may, and often does terminate fatally.

In the treatment of this disease, as I have already said, it is of the utmost importance to remove the causes; for when these continue to act, remedies that are used can only be of temporary benefit.

The digestive system if disordered, should be corrected, the bowels should be regulated; — hemorrhage or any other drain

in the system which may exist should be repressed; the menses, if retained, excessive, or otherwise irregular, must be restored to its healthy condition; and any other existing disease which may interfere with the processes of digestion and assimilation, or debilitate the system at large should, as far as possible, be removed.

Attention must be directed to the particular circumstances of the patient and any individual habits corrected or obviated as far as possible. In acute cases the patient must be kept as quiet as possible until the blood is restored to its healthy standard.

In chronic cases, the patient

should be encouraged to take moderate exercise in the open air, he should [illegible] and [illegible] of temperature. [illegible] regulating the general health will tend to improve the depraved condition of the system and [illegible] a more copious supply of blood.

The medicines best adapted to the relief of the disease are [illegible] and particularly the different preparations of iron, which besides an invigorating [illegible] the vital [illegible] generally [illegible] the [illegible] property of [illegible] the [illegible]

They produce the very [illegible]

that is wanted in the disease,
that is, they augment the proportion
of red corpuscles.

Any of the various preparations
of iron may be used; but the one
which [illegible] the stomach [illegible]
and is most easily [illegible]

The carbonate is perhaps the best.
given in doses of from [illegible]
[illegible]

Tannate of iron has been [illegible]
cially recommended in some partic-
ular forms of the disease.

In cases of pure anaemia,
when not complicated with any
organic affection, [illegible] with a
good and nourishing [illegible] a-
capable of bringing about a
complete cure.

with some of the aromatics, as

with signal advantage, and if the [illegible] are deranged, the nitromuriatic acid is the one from which most good is to be derived.

The [illegible] so frequently supervene in the course of this disease, may be relieved by the use of antispasmodics, valerian and assafetida are about the best agents of this class and the narcotic extracts may also prove highly beneficial such as those of [illegible] [illegible].

The severe neuralgia [illegible] which so often attend this disease may be relieved [illegible] the affected part, and after [illegible]

the [illegible] may be [illegible] [illegible]

[illegible] may be [illegible] daily, with great advantage [illegible] followed by reaction; and dry friction over the surface, has been practised with benefit.

Quinine may be [illegible], in this disease, for its tonic effect sometimes with great advantage, combined with the preparations of iron; the dose should be from one to two grains [illegible] or three times a day.

W. M. H.

An
Inaugural Dissertation
On
Acute Bronchitis
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for the
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by
A L Middleton
of
Charles County
Maryland

1860

Acute Bronchitis

The term acute bronchitis is meant an inflammation of the mucous membrane of the bronchia, and is applicable to all cases of short duration. Acute bronchitis is one of the most common diseases which man is liable. It varies greatly in degree, and somewhat in character. The inflammation begins very frequently in the nostrils, fauces, or larynx and thence descends into the bronchia it is apt to retain the last mentioned position unless modified by treatment the grade of severity which characterized it at the outset.

In its mildest forms acute bronchitis is but a slight disorder, commonly called a cold or cold in the breast. It usually

comes on with a little hoarseness followed by cough, with a feeling of heat or soreness in the chest. The cough is at first dry, but very soon attended with expectoration, and then gradually subsides causing very little inconvenience to the patient, and seldom requiring the interference of the physician. Between this form of the disease and the next to be described the slight grade, there is every shade of difference.

A common form of the disease is one formerly known as catarrhal fever, and is still frequently so called. Beginning with coryza, sore throat, or hoarseness and sensations of lassitude, weariness, aching in the limbs, chilliness, followed

by febrile symtoms, it soon shows the characteristic signs of bronchial inflamation. There is a feeling of diffused heat and uneasiness in the uper and anterior part of the chest, and often of tightness, stricture, weight or soreness without pain unless in coughing. In severer cases these sensations are distressing, and attended with feelings of oppressed breathing, and occasionally with some difficulty of inspiration. Cough is usualy among the first symtoms and soon becomes one of the most prominent. In the commencement it is short and dry or accompanied with slight expectoration and is often very painful, producing feeling of rending, scraping or tearing.

beneath the Sternum. It has some tendency to occur in paroxysms, especially in the morning after waking, when a little viscid mucus is discharged, with temporary relief, at this stage the patient is usually affected with frequency of pulse, heat and dryness of skin, flushed face, headache, furred tongue, scanty and high coloured urine, nausea and vomiting, in short all the symptoms of fever. There is usually a remission of fever in the morning, and an exacerbation in the evening. In some rare cases all the symptoms above described gradually subsides without any change in the bronchial secretion, but in the majority of cases of this condition of some

or two days the patient begins to expectorate a transparent, ropy, and slightly frothy mucus, of a saline taste, often streaked with blood, which is thrown up with painful, and sometimes convulsive coughing. This expectorated matter gradually increases in quantity and at the same time in consistence instead of being colourless and transparent as at first, becomes opaque and white and ultimately greenish or yellowish and at the same time quite bland to the taste. Sometime this altered secretion is mixed with the still more transparent matter, at others it exclusively. Along with the change in the mucus secretion, there is usually an amelioration

of the symtoms. "The cough is easier the sorenep and the tension are diminished and fever abates. In some instances after such an amendment, the mucus discharge again becomes thinner and more transparent. and the symtoms generally undergo a change for the worst, indicating a temporary increase of the inflamation. At length the disease gives away, the expectoration becomes free and easy, with an opaque and puruloid dicharge, the skin becomes moist, the urine increases in quantity, the fever subsides, and the patient gradually returnes to health. but with a slight cough remaining for a considerable time. The attack varies in duration generally four or five days. though it sometimes

runs on for two or three weeks, and some times assumes the chronic form.
Occasionally after the subsidence of the acute symptoms, a condition is left approaching in character hectic, with frequent pulse, copious purulent expectoation, night sweats, amaciation and debility. "The system is too weak to recover from the blow it has received and the patient gradually sinks, unless appropriately treated." "The grade of action throughout the complaint varies greatly. Generally it is sthenic with a strong full pulse and bears depletion well. Occasionally it is low or asthenic in consequence of the peculiar condition of the patient. This distinction

is very important in practice. In the grades of brochitis, above described the disease is very seldom fatal, unless old persons or those debilitated by chronic complaints in whom there is insufficient strength to through of the copious bronchial secretion. Which therefore overwhelms the lungs, but cases of a severer and dangerous character are not unfrequently met with. In those above mentioned the inflamation is moderate and confined to the larger tubes. In those now alluded the inflamation is more intense and sinks deeply into bronchial membrane even to the submucous tissue or penetrates farther into the tubes. so as to reach their ultimate ramifications. In

these cases without a materially greater amount of soreness, and pain. There is a greater amount of oppression, and difficult respiration. When these arise from mere intensity of inflamation the air enters with difficulty through the thickened or constricted tubes, producing a blowing sound audible at a considerable distance. The patient suffers with feelings of impending soffocation. When the cause of the difficulty arises from the extent of inflammation, respiration is hurried the dyspnea extreame, and the pulse very frequent and the strength speedily exhausted. This is most common to infants and sometimes quickly fatal, occasionally

in these severer form of bronchitis the dyspnea is very sudden and may carry of the patient in the paroxysm unless relieved. The expectoration is sometimes thick and glutinous, even at the beginning more like the adhesive secretion of pneumonia than the mucus of ordinary catarrh. It is occasionally fibrinous, and small quantities of false membrane are coughed up with the mucus secretion. The danger may arise from the shock to the nervous system, but it more commonly proceeds from interference to the access of air to the cells, and consequently with the due aeration of the blood. Dark blood therefore flows through the system, producing its depressing effects upon the

the brain and its dependant functions.
c The face becomes pale or somewhat purplish
the surface cool, pulse frequent and weak
dyspnea excessive, and the countenance
expressive of great anxiety. d The vital
powers give way. the skin is cool and
clammy. the patients complains of thirst
and death soon takes place preceded
by coma. delirium or convulsions
d Those that perish of the disease are the
very young, and old and debilitated
e The swelling of the tubes, and the secretion
into the smaller tubes cause an obstruction
to the entrance of the air which the
feeble muscular powers of the patient is
unable to overcome. Sometimes it is
the blocking up of one of the larger tubes

which supplys a large portion of lung
inal occasions death. Besides this
bronchitis not unfrequently becomes
complicated with pneumonia, which
greatly increases its danger. An occa
sional variety of bronchitis is one in
which the inflamation is obviously ac-
companied with spasm of the bronchial
tubes, Paroxysms like those of Spasmo
dic asthma come on at irregular
periods, threatining the patient with
immediate death. In other respects the
cases do not differ from those above
mentioned. There is another variety
in which instead of mucus or in con-
nection with it. There is coagulable
lymph secreted on the inner side of

the bronchia forming false membrane, which prevents the air from entering the cells. "This happens chiefly in infants and constituting a feature in the worst form of croup. "There is not much constitutional disturbance in these cases generally. "This is sometimes so limited in extent as not occasion fever. "The patient is harrassed with cough, perhaps spits up blood consequent upon partial separation of the false membrane, and sometimes later after severe coughing expectorates the offending cause. Sometimes the disease is much more severe, it is attended with dyspnea, violent coughing, and expectoration of masses of fibrinous

matter which the microscope shows to be casts of the bronchia, this variety sometimes runs into the chronic form. Bronchitis is sometimes complicated with billious and Gastric symptoms such as a yellowtinge of the eyes and skin, furred tongue, nausea and vomiting, and tenderness in the epigastrium and right hypochondrium. These may arise from portal congestion Gastric or hepatic inflamation or from miasmatic adding remittent fever to the bronchial affection. When bronchitis invades the smaller tubes it has a tendency to pass into the air cells, especially in infants. This constituting pneumonia

It is not always easy to determine the limits between the two affections, nor is it a point of any importance, as the treatment is essentially the same. Pneumonia may always be suspected in bronchitis, when together with the loose fluid secretion of the latter complaint, the tough rusty coloured sputa, characteristic of pneumonia, is thrown up.

There is a certain condition of bronchitis characterized by dyspnea coming on very suddenly, with copious and early secretion of mucus, and consequent wheezing respiration. The patient speaks with difficulty, is unable to lie down, gasps for breath, and coughs

incessantly to free the lungs from the matter which threatens to overwhelm them. An almost universal mucous rale is heard all over the chest, while percussion is occasionly dull in some parts, in consequence of mucus accumulation, or the existence of pulmonary congestion, or collapse.

Febrile symtoms soon make their appearence but do not continue long. Those consequent upon defficient aeration of the blood soon accumulate and are very striking, the face is pale or livid, the lips are purply, the extremities are cold, and the circulation feeble. The disease is very dangerous, but the fatality is chiefly owing to the

previous bad health of the patient.

Physical Signs. The characteristic signs of bronchial inflamation is clearness upon percussion over all parts of the chest. Diminished a little as the disease advances, the dry sonorous or sibilant rales in the earliest stage. afterwards moist or mucous rales, more or less mixed with dry, and the respiratory murmurs still audible though frequently weakened. especially ~~in the disease~~ if the disease is seated in the smaller tubes. It is not always that the dry rales are heard in bronchitis, the disease may be so mild as not sufficient to narrow the tubes to cause these sounds. Sometimes the two

sounds heard under the same circumstances
Both arise from diminished caliber
of the bronchia, consequent upon in-
flammatory thickening or exudation
or spasmodic constriction, but the sonorous rale is heard in the larger, and
the sibilant in the smaller tubes.
It sometimes happens that the cal-
iber of one of the larger bronchia is
so much contracted as to occasion
hissing or whistling sound, and this
may be known by the presistence of
the sound during the whole period
of inspiration and expiration; for
in the smaller tubes the air is not
so long in its passage as in the
larger according to the height of

the chest over which the sound can be heard, is in general the extent of the inflammation. The dry sounds are seldom pure, even when first heard, by the ear, as secretion begins generally before the membrane has become so thickened as to cause them.

In the great majority of cases, there is from the beginning more or less mucous bubbling or crepitation, and it is only the predominance of the dry sounds which determines the stage of the disease. When the stage of secretion has been fully established, the moist sounds predominate, though the dry sounds are still frequently heard. The moist sounds themselves are accom

ding to the size of the tubes, and consequently of the bubbles formed in them the mucous rale is perceived in the larger and the subcrepitant in the smaller. When this & one the fine crepitation of the latter is heard, especially if in connection with it the sibilant rale, the evidence is conclusive that the disease is seated in the smaller bronchial ramifications. and should the respiratory murmur be superseded by these sounds, it should be inferred that the disease is very extensive, Under such circumstances it would be difficult to distinguish bronchitis from pneumonia, especially if there should be some congestion of the lungs

producing dullness on percussion, was connected with the former, but the absence of the crepitation, of the rusty coloured Sputa, of bronchial respiration of the bronchophony, the temporary duration of the dullness would be sufficient to prove the absence of pneumonic inflammation.

Sometimes the mucus is so thick and tenacious in the advanced stages of bronchitis, which narrows the passage so much as to cause the sonorous and sibilant rales.

An important physical sign of bronchitis is that the respiratory murmur though usually heard over the whole lung, yet sometimes cannot be heard over one or more particular

to the suspicion that consolidation has taken place from inflamation or other causes, But percussion relieves the apprehension by proving that the lung continues sonorous, and consequently contains air.

The phenomenon is owing to the obstruction of one of the bronchial tubes by a plug of mucus, or by inflammatory thickening.

Anatomical Character. The bronchial mucous membrane is reddened, thickened, and softened, occasionally rough and destitute of its natural polish, and in some very rare cases ulcerated or gangrenous. The redness is sometimes diffused, but more generally

in patches, points, or streaks. In mild cases the redness is confined to the larger tubes. In the severer it extends into the smaller ramifications.

Under the microscope the surface can be seen to be deprived of its epithelium and the fibrous layer covered with fibrinous exudation in place of it.

The tubes contain mucus in various states, sometimes blood and not unfrequently pus. In cases which appear to have proved fatal from the abundance of the secretion, the lungs refuse to collapse upon the admission of air into the pleural cavities. The bronchia is sometimes dilated.

The lungs are sometimes found in a

collapsed condition, consequent upon obstruction of the bronchial tube stead-ing to the parts affected. Dr Gairdner describes two condition of this collapse, one of diffused and the other of the lobular form. In both the colour is usually of a dark violet, on the surface and brownish red within, the crep-itation is diminished or quite lost, and when collapse is complete, portions are found to sink in water. The cut surface presents a smooth appearance resembling muscular flesh, and without the granular aspect characteristic of hepatization of pneumonia. In the diffus-ed variety the states of collapse may affect a large portion of both lungs

and especially on the posterior part,
and gradually passing into the healthy
structure, while the lobular the condensed
part has an abrupt boundary, being ac-
curately limited by the interlobular
septa. Small abscesses may sometimes
be found in the collapsed portion of
lung, from the size of a hempseed to
twice or three times the volume.
Dr. Gairdner considers these thick, bronchial
but they are probably air cells distended
with pus. They sometimes occur in adults
but more frequently on infants.
Dr. Gairdner ascribes the local collapse
partly to mechanical excess of the expiratory
over the inspiratory power, which causes
the air to be expelled with great force

than it can enter through the impediment in the bronchia

Causes. Cold is beyond all comparison the most frequent cause of bronchitis It is most apt to cause it, when partially applyed to some one portion of the frame, as to the back of the neck, feet &c &c, or to the body previous heated by exercise, and in a state of perspiration, and it is always most injurious when combined with moisture,

The disease is most frequent, the latter part of autumn, in winter, and spring, when the atmosphere changes are frequent and great, and the air loaded with condensed moisture, But it occurs from the same cause in summer, and some-

times, when protracted, ceases upon the occurrence of cold clear weather of Winter. Other causes are heated air, acrid gases or vapours, and irritating powders inhaled into the lungs, In some persons the disease is caused by peculiar exhalations, which do not affect men in general, Thus the powders of ipecacuanha sometimes excites violent bronchial inflammation when inhaled, English writers speak of a peculiar catarrhal affection, called the hay asthma, which occurs in some susceptible persons about the period of mowing hay in May & June, and is ascribed to the exhalation from a certain kind of grass when cut;

Bronchitis occurs periodically in some persons, once a year, and at the same time of the year, without any assignable cause.

Epidemic influences is a powerful and not unfrequent cause of bronchitis. The disease is a frequent attendant upon many other complaints, as measles, smallpox, scarlet fever, hooping cough, asthma, typhoid fever, and acute inflammation of the lungs, pleura, pericardium, and liver. It affords us one of the first signs of deposition of Tubercules in phthisis.

Treatment. In the commencement of one of these bronchial affections while there is yet but a slight congestion

ness of the throat, or hoarseness, and the irritation has just begun to show itself in the chest, the disease may be entirely subverted by a dose of opium at bedtime, a copious perspiration by bottle gas strenuous bodily exercise or even by a full supply of stimulating food or drink. But it is only in those cases, where the patient has previous suffered from severe attacks, that such treatment would be desirable, and the stimulating plan is altogether too hazardous, for ordinary use, as if it fail it will be liable to aid & to aggravate the subsequent symptoms

In mild cases of bronchitis, with little or no fever, nothing is more requisite

than a saline cathartic, confinement
to the house, a regulable diet, demulcent
drinks, and small doses of antimonials.
Should a considerable fever exist, along
with the pectoral symptoms, the patient
ought to soak his feet in hot water, go
to bed, and take every hour or two a
dose of the neutral mixture, with a
small proportion of antimony or one of
the liquid preparations of ipecacuanha.
When there are headache, oppressed
breathing, pain or soreness in the chest,
or any one of those symptoms in a high de-
gree, along with a strong full pulse,
blood should be taken from the arm
in robust persons to the amount of
eight ounces, but generally speaking

is required than in ser-ous inflam-
mations, and the great majority of
cases do very well without it. In using
the depleting measures care must be had
in reference to the constitution of
the patient. When bleeding is of doubt-
ful propriety, should the local inflam
mation seem to call for depletion, cups
or leaches should be applied to breast
or between the shoulders or wherever
the sibilant rale is most heard, and
in these cases these are admirable adjuvants
to the lancet. When there is debility dry
cups should be used.
In severe cases a full purgative
dose of calomel should be given at
first. Sometimes an adjunct to

to the lancet, Tartar emetic in as large
doses as the stomach will tolerate
without nausea. When the first violence
of the inflammation is over, Medicine
should be given to promote expectoration
Squill or Senega in connection with
Tartar emetic or ipecacuanha. After
expectoration has been fairly established
Opiates come in with great advantage,
not only add to the comfort of the patient
but tend to promote a cure. Morphia
is the best of its preparations in cough
mixtures, from the circumstance of its re-
straining the secretions. Should bronchitis
seem indisposed to yield to depletion
then should be no delay in resorting to
mercury, for its peculiar influence on

the system. In the advanced stage of bronchitis supporting measures should be used. Such as wine whey, brandy, carbonate of ammonia &c &c.
Local means are also important. After the application of cups or leaches, in severe cases. large poultices are useful kept steadily applyed for days together. After due depletion, sinapisms or blisters are highly beneficial.
When the inflammation is complicated with spasmodic paroxysms of asthmatic character. emetics of ipecacuanha during the paroxysms, and the use of tincture of lobelia, in such doses as to slightly nauseate, without vomiting. In relation to the variety called in Great Britain

the hay asthma, independently of the other measures employed in catarrhal affections. Mr. Gordon Hake has found Lobelia the most speedy and effectual remedy, and the cold water bath, and a combination of quinia and iron the most effectual preventives.

"Man is born to die."

Of all the diseases which, in their turn, attack mankind, in their violence, to enforce this great axiom of our nature, none are more varied in symptoms, duration, and prognosis, than those which form the theme of our present consideration. At one time they will approach their subject as gently as the dew-drop does the flower, causing it but slightly to bend under an oppression that will, with the aid of sunlight, enlarge the petals, magnify the corolla and beautify the color of each. At another, with the swiftness of lightning and the vehemence

of an angered fiend, they will strike their unwary victim with the symptoms of death, paralize the limbs, blunting sensation, and robbing the mind of her seat, upon the throne of matter.
And still again, they will join their deluded prey in the business or social walks walks of life, as the vampire does the weary traveler of the African desert, flattering him that nothing but a simple head-ache, from an over-exerted brain, is the cause of his depression, and painting upon the cheek the lovliest hue of the rose which he believes and welcomes as the

fountain of hope; but in reality
is but the omen of death.
Thus an attack may be mild
and gentle, leaving the patient
ever improved in health, may
be violent, and powerful, distinguish-
ing in a few hours, or may be
deceitful, and treacherous, causing
no alarm until the agonies of
death are present; symptoms
which not a little resemble the
actions of Judas, who betrayed
his master with a kiss.
Originality is the offspring of
experience, therefore, in the follow-
ing sheets, I can but hope to
express in my own language,

the ideas of others; and if these attempts are successful, in portraying the admirable innovations from the chair of medicine of the Maryland University, should be liberally rewarded for the close attention and remembrance of the same.

Symptoms of Typhoid fever.—
Modes of commencing; in some cases abruptly as by rigors, in others gradually and insidiously—slight derangement of nervous system, wandering pain in the head, back, & extremities, chilliness &c— This disease has three stages—the first stage is characterized by the following symptoms; begins by chills, headache, nervousness, pain in the back, expression dull, and before the end of the week the patient becomes delirious, nausea and vomiting, more or less diorrhoea, urine changed in its color & odor; is watery & scanty— Second stage Weak pulse, becoming feeble and more rapid, subsultus tendinum, deafness, tongue dry and of a brown appearance,

sordes on the teeth, tympanitic abdomen, bladder also distended, but incontinence of urine, eruption of rose spots, bed sores, great increase of debility so weak as to slip down in the bed the feet protruding. Third stage. If the patient now is commencing to recover the delirium diminishes & also the other symptoms commence to improve. If on the other hand the disease is going on to a fatal termination the pulse becomes increased, weak & irregular, further distension of the abdomen, coldness of the extremities. Death sometimes occurs by rigors & convulsions but generally by coma. The pulse is frequently variously effected, almost always preternaturally frequent, from 108 to 110 pulsations to

the minute. The more rapid the pulse the greater is the danger; sometimes it becomes intermittent, which indicates heart disease. Chills & rigors usually mark the origin of this disease: the heat of the surface is irregular, at one part of the day at a much higher temperature than at another, or, in other words, there are two or three remissions of the heat daily; headache occurs throughout the disease, in mild cases, but, in violent cases, the patient is not sensible of it. Delirium very generally occurs & in proportion to the violence of the attack, & is most generally of a low, muttering variety; recovery from delirium is always sudden, the mind is sometimes left in a very feeble condition; countenance

vacant & puzzled, indisposition to sleep often present, but in many cases the effect is just the opposite; deafness or buzzing in the ears is an unfavourable symptom. Loss of muscular power is one of the most characteristic symptoms. Subsultus tendinum sometimes occurs, at times it takes place in the diaphragm and consists of hiccup; this is unfavourable. The tongue generally furred, sometimes dry & red. In many cases the patient loses command of his tongue, and is unable to withdraw it into the mouth after he has protruded it by the order of the Physician. A dark sordes on the teeth & lips is a characteristic sign. The Parotid gland is sometimes swollen. The lips oftened [illegible]

and occasionally, but rarely, covered with pimples, which indicates malarious origin. There is great thirst, nausea frequently experienced at all stages of the disease, vomiting is a very common symptom; it attacks twelve out of twenty three, according to Louis, who have the disease, slight cases occur, frequently, without vomiting. Diarrhoea a most prominent symptom, or the the bowles are preter-naturally susceptible to the action of cathartics. The discharges are more fluid than natural and of a muddy consistence. Pains in the bowles occur at various periods of the disease they vary in degree from slight to great violence, most prominent in the right iliac region. Hyperaemitis is nearly

always present & most frequently occurs in the colon; it usually comes on during the 2nd or 3rd week and it is often very formidable. Perforation of the canal is indicated by all the symptoms of peritonitis; this often occurs in the mildest forms of this disease. Hemorrhage from the nose occurs early in the disease; sometimes early, also, violent and repeated hemorrhage from the bowels also occurs; this symptom is always dangerous. Retention of urine not unfrequently occurs in the last stage of the disease; it is a very common symptom. The rose colored spots occur generally in this disease & are considered a distinguishing symptom, but this eruption does occur,

though rarely, in some other cases of disease. Many affirm that these spots always occur, but Louis found them wanting in five cases out of fifty; they consist of bright red spots, oval, and about the size of the head of a pin, sometimes a little elevated from the surface; by pressure on the spots we can make them disappear but when the pressure is removed they soon return; they appear on the abdomen most frequently, beginning to occur at the end of the second or beginning of the 3rd week — They are present from 3 to 15 days in successive crops; they very much resemble flee-bites but are distinguished from them by the absence of the characterizing point or little black

spot in the center of them. Sudamina are frequently seen, in this disease, varying in size from minute points up to the size of a pea, and occurring, generally, on the side of the neck, below the clavicle, and in the groin; these rarely appear before the 12th day, they are seen more frequently in this disease than in any other, but they are not peculiar to it. In severe and protracted cases there is often exhibited a tendency to sloughing ulcerations, such as bed sores, resulting from long continued pressure on some prominent point. None of these symptoms are pathognomonic, and they are by no means all present in any case.

Duration of Typhoid fever. It is difficult to tell, when the disease commences, at what time it will terminate, except in very bad cases, which we know will prove fatal; but, generally, the average is from 20 to 30 days. Death often occurs in the second or third week, & some few cases end, fatally, on the seventh or eighth day; — it sometimes continues 60 days.

Pathological changes.

Rheumatism is exceedingly apt to attack the heart. When thus affected, the patient tells you of pain and flattering in that organ, never be deceived by this symptom; examine by auscultation; structural alteration may take place before the

rheumatism, causing death indirectly by apoplexy. A good remedy to administer, is the Bi carb. Potash, gr. xx every two hours, until the action of the heart is relieved; alkalies used because we wish to relieve the blood of lithic & uric acids, this being the cause of the inflammation. Perspiration strongly acid. Effusions of the joints require time to be absorbed; alkalies produce their effect, by the chemical change in the blood, & may cause absolute anaemia, by too long continued use; the alkalies, in such cases, should be followed by iron.

The second or Typhus variety of Continued fever.

This type is very closely allied to the

former; the following are the most prominent symptoms by which it differs from Typhoid. 1st Its approach is more abrupt. 2nd Complexion is darker; in Typus, of a dark red color, & the skin much hotter, a peculiar heat, designated 'calor mordix', and which is felt in the hand after you have removed it from the patient's body. The opposite condition of the bowels to that presented in Typhoid, that is constipation; no tympanites occurs, hemorrhages rarely occur, stupor and dullness of intellect more strongly marked. The eruption appears sooner, and consists of petechiae (like flee bites); the size of these varies from

a small point to half inch in diameter; they are not elevated above the surface, they are of a dark red color. With regard to their number, they are sometimes very numerous, extending over the limbs. They make their appearance from the 5th to the 8th day, sometimes on the 3rd day; they are not easily obliterated by pressure, excepting when they first appear, when they are of a light florid color, but as they grow darker, pressure does not affect them; again, in the most dangerous varieties, they come out originally so dark that pressure has no effect whatever on them. They commonly decline from the 10th to the 17th days, remaining, generally,

enlarged and engorged, Heart sometimes softened and broken down. The causes of the disease are not known, but some of the circumstances attending it are known, as the crowding together of a large number of persons in ill ventilated apartments, poorly clad & fed person. Predisposing causes, exposure to cold and damp air. It is certainly contagious, as the following case, related by Prof. Chew, as falling under his notice at the Baltimore Infirmary, will amply prove. A ship arrived here loaded with Irish emigrants, the greater number of whom were suffering from Typhus fever;

they were brought up from the ship,
and distributed through the wards of
the Infirmary; the consequence was
that in a few days the fever broke
out among the rest of the patients,
also the nurses & Sisters. Three of the
last mentioned died, two of the nurses
and quite a number of the patients.
The contagion, under ordinary
circumstances, is not very formidable
married; if however the rooms are
much crowded, there is great danger.
The period that elapses after the ex-
posure has been supposed, before the time
the disease or it is developed, is from
one to two weeks. Second attacks are
not common, though they do sometimes

occur. No period of life is exempt from it; far less common in infancy than in old age, or rather adult age. The disease prevails in all seasons, more generally in Winter. It occurs, chiefly, in temperate climates. The disease probably arises from some particular poison, which acts on the nervous system. It resembles Typhoid fever more particularly than any other. The mortality varies, it averages about one in every 25. The danger of the attack depends on the condition of the system; worse, of course, in weak constitutions.

Treatment of Continued Fever

The treatment of the two varieties is very much the same, the common means to check the disease suddenly; we take a middle course and combat the symptoms as they arise, and thus help nature in bringing the disease to its close. The indications to treat either variety are, first, to remove all sources of irritation; secondly, to abate vascular excitement; thirdly, to support the system by the use of stimulants and tonics; fourthly, to remove all urgent symptoms or local inflammations that may arise during the course of the disease.

1st Indication. To remove all sources of irritation, the fulfilment of this

indication consists partially in Hygienic measures. The patient should be placed in a quiet, pleasant, room, and strict watch kept over him; secluded from noise and light; diet antiphlogistic, free access of air should always be advised; to remove intestinal irritation, mild apperients in moderate doses; in Typhoid fever the bowels are easily moved; the best, for acidity, is calcined magnesia; Castor oil to remove irritating matters, one discharge daily is sufficient. In the Typhus variety apperients are most always called for; a favourite laxative in this disease is Castor oil, and when vascular

excitement is occasionally cathartics are indicated. When the stomach is too irritable for the administration by the mouth of cathartics, an enema should be given.
Emetics are seldom indicated, but when may be administered in the first stage, when the stomach is found over loaded and the extremely disagreeable symptom of nausea exists, to clear out the primae viae; they should be used rarely in the disease however; they are more salutary in the typhoid variety than in typhus.
2nd Indication; To reduce vascular excitement. Bloodletting is not used

and general, and antiphlogistics, fulfil this indication. General bleeding is not frequently admissable, but if the patient be young and plethoric, the pulse full and tense, and a tendency to inflamation is exhibited, it may be resorted to with great benefit. Venesection is demanded far less often in Typhoid than Typhus; eight or ten ounces are sufficient, at any time; take just enough to affect the pulse; the patient should be made to sit up. Local bleeding may be used when general bleeding would be contraindicated; and, when there is a tendency to inflamation

of any organ, if the prostration be extreme, bleeding is hurtful, in any mode or under any circumstances; local inflammation must be treated, in such cases, by antiphlogistics. Dry cups are often beneficial, cold may be used internally & applied externally. The temperature of the water used, externally, should be adapted to the feelings of the patient. Among the antiphlogistics used, many practitioners prefer mercury, Ref. Chew uses it but with caution; he never commences until the excitement has subsided; two grains of Mass Hydrarg given every three or four hours, in combination with chalk,

until ptyalism shows itself. Stimulants must be used, and it is better to begin their use too soon than too late. A more supporting diet such as beef tea, chicken soup, &c. this treatment must be used cautiously. If the system still begins to sink, the diet must be made more stimulating, Brandy & Wine may be used now, but the effects should be carefully noticed. Wine may be used in the form of Whey or pure, the latter in the dose of from a glass full every hour or two to a quart a day according to circumstances; Sulphuric Ether is the strongest stimulant we possess.

If Spirits of turpentine is indicated, by the tongue and condition of Peyers glands, it is to be given; it acts as a stimulant, and an alterative; the dose is from five to twenty five minims, every hour, or second hour; if it irritates the bowels, add a little tinct. Opii. Many cases do not need a great deal of stimulation. Typhus fever requires more stimulus than Typhoid. When we are administering stimulants to a patient, and he is very weak and inclined to sleep, you must wake him up, at the regular intervals, and give the stimulus; or, as Prof Chew remarked,

'he may sleep his last sleep'. Quinine, as a tonic, is one of the best we possess; given in one or two grains every hour; its use is not confined to the latter periods of the disease, exclusively, but there is no remedy, however, which has the power of cutting short the disease. Prof Chow thinks it exerts no good influence in the early stage, but in the last stage it is an excellent tonic. The last indication is to counteract local local inflamation, or any other bad symptom that may arise. For the relief of violent headache, cups applied to back of the neck; share the head and apply ice,

cold lotions &c. One caution in the use of cold; that is, not to withdraw it too suddenly or else reaction will take place & the patient becoming worse. At a later period when the symptoms of coma are strongly marked, a blister may be applied to the scalp. Pain in the abdomen relieved best by rubefacients, warm lotions &c. Epistaxis, when obstinate, may be suppressed by plugging the nose with lint, dipped in spts. of Turpentine. Hæmorrhage from the bowels diminished, by sinapisms to abdomen, and the use of astringents internally, as Tannin.

An

Inaugural Dissertation

on Opium,

Submitted to the examination

of the

Provost, Regents and Faculty

of Physic

of the

University of Maryland,

for the degree

of

Doctor of Medicine

by

William Henry Robins,

Anno Domini 1860.

To

Charles Frick M. D.

Professor of

Materia Medica

in the

University of Maryland.

in admiration of his

Superior Talents,

and

high attainments in the

profession,

this treatise is most

respectfully inscribed

by The

Author.

"Opium."

This medicine is classed under the head of Cerebral Stimulants; and of all the remedial agents of the whole Materia Medica, not one deserves the character of being more important, or of possessing more valuable medicinal virtues, than Opium. Its various properties, its many preparations and different modes of application, have won for it a place foremost in the ranks of Medicines, not only among the allopathic practitioners, but among those of every medical sect; all of whom, knowing the value, consequently highly appreciate the merits of the drug. To this agent alone may be ascribed the happy effects of many of the nostrums, with which our country,

and in fact the whole World is filled;
and many impostors have filled their
coffers by vending so called Specif=
ics for every disease "which human
flesh is heir to," the chief ingredient
of which is opium, the rest being
carefully and cunningly concealed
from the public eye. Thus the relief
which so many have experienced
from their various afflictions, by
the use of these preparations; and
their great popularity, is entirely at=
tributable to the soothing influen=
ces of opium. Believing therefore in
its most important value and appre=
ciating its virtues, I beg leave to sub=
=mit to the faculty of the University
of Md. a short treatise upon its

practical applicability, its properties virtues &c; regretting deeply the inability of my pen to render it that justice it so correctly deserves.

This drug is the inspissated juice of the Poppy, or Papaver Somniferum, a plant which is found in some parts of Asia, and Egypt. It is obtained by making incisions in the bark, from which will exude the juice, which when collected and dried, constitutes the Opium received in this country. There are several varieties which reach us, two of which have gained the ascendency in the professions, and which these pages will form the subject of the following remarks, although each variety I will slightly notice. The two above

referred to are Turkey and Egyptian
opium. The former includes two va-
rieties, Constantinople and Smyrna,
so named from the ports through which they
reach us. The last of these consti-
tutes the chief variety of the drug
which is used on our Western Shores.
It is this which is almost always em-
ployed when the gum itself is ad-
ministered; but when it is used in
the liquid state, or when Morphia
is given, it is often impossible
to determine of what variety the med-
icine is prepared. That which is ob-
tained from the port of Smyrna,
is of a reddish brown color and pre-
sents a fading of moisture when
the fractured surface is rubbed again

the fingers, showing at once the existence of tears, ~~of~~ which most writers detail as a characteristic, but which are so extremely minute, as to be rendered invisible to the eye, unaided by the Microscope. — From Constantinople is exported another kind, much inferior to the first, which is generally distinguished by the dry surface when broken. This is mostly used in preparing Morphia, which is by far the best method of employing it, as there is always a less quantity of that property in this variety, than any other, and it is this, that the chief use of the drug is determined upon. — That kind known as the Egyptian Opium and which comes to us also from the

same ports, is still more inferior in quality and still less used. It is recognized by its hardness and brittleness, and by the shining appearance which its fractured surface presents. Its quantity of Morphia is less than that contained in any other variety, and of course is seldom administered on account of the uncertainty of its action. The properties of the drug are variously determined by different writers, some attributing more than others. But among all, Morphia is considered by far the most consequence. Next are Codeia and Narcotina, which by some authors are recommended in some diseases. It is the effect of the gu=

phia though, that every physician seeks when he administers the drug, which effects constitute the remedial efficacy. It also contains Theibaina, Papaverina and Opianin, which have their alkaline properties, Narcein, Meconin and Porphyroxin, and also Meconic Acid. "The vegetable constituents are a gummy and extractive matter, resin, a substance resembling Caoutchouc fixed oil, albumen and various mineral substances, very small in quantity." But all of these are so obscure in their action on the system that but very little concerning it has been ascertained; and therefore, the profession is somewhat ignorant of their therapeutic applications. There can be no doubt, however, that

Dr. Wood's Therapeutics and Pharmacology

They do exercise some influence on the system; for Opium given in substance is sometimes found to be very different in its effects, than Morphia, exhibited in the same dose comparatively, and under similar circumstances; Thus it is proved that there is a difference in the effects; and it is not unlikely that too much efficiency is attributed to Morphia, as many other properties of Opium may be concerned in the beneficial effects produced by the employment of the drug. — There are some substances which cause precipitates, by adding them to this drug; but as they do not materially impair its use, it is of little consequence. Should the efficacy of it however, be found to be partially

lost, the precipitates can be readily dissolved by using alcohol. There are various tests of Opium, such as the color imparted to litmus paper when drawn over it by the finger, the effect which ~~which~~ ammonia has upon it, by turning its appearance somewhat turbid, and by its being deeply reddened by sesquioxide of Iron. But the most reliable, and consequently by far the most valuable test, is the quantity of Morphia it contains. — Having now somewhat cursorily passed over the history properties &c of Opium, I come ~~now~~ to the consideration of the most important part of my subject, "The effects on the System"; and in order to notice all of these, I shall briefly note

The different varieties into which they are divided viz. upon the Nervous and Respiratory Systems, upon the Organs and functions, and upon the Circulation. The last however according to the forms of the different works on Therapeutics, comes before the effects on the Organs and Functions, which course I shall also pursue. — Opium is at first stimulating, but after some time, it acts with a proportionate degree of sedation.

When not exactly a full dose is taken into the system, that is when it is swallowed, a feeling, of heat and weight in the stomach is experienced at first; but after a while, varying in accordance with the susceptibility of the patient, a feeling of the most deli-

cious character comes gradually over the whole System, owing no doubt to the transmission of the effects thro' the nervous centres to every part of the body. This feeling is beyond the discription of language. The patient feels as if every wish were gratified, every care removed, every unpleasant circumstance obliterated from his memory, and that he needs nothing else to complete his indescribable happiness. Everything around him assumes the appearance of ease and comfort, nothing seems to disturb his tranquility; and he remains under the peaceful influence of the pleasing fancies, whose power has totally enveloped him. Under these influences

his whole system seems to be invig=
orated, and in fact it is; for surely he
is capable of enduring more fatigue, his
physical powers are for the time in=
creased, and his mental and moral
faculties seem strengthened and ex=
alted, so that things of infinitely a bet=
ter character succeed those of a more
inferior nature. — If the quantity taken
is just insufficient to cause sleep he
lies in an easy, quiescent state, unruf=
fled by any occurring circumstances, and
placidly resigned to a current of vague,
but pleasing ideas. This effect may
last twelve, twenty four, or even thirty
six hours, then will follow the relax=
ing or sedative effects. This stage is
scarcely less pleasant, than the first,

it being different to the first, by the partial relaxed condition of the muscular system, the temporary abstraction or diminished activity of the mind, the desire for quietude and repose, and the disagreeable sensations produced by outward disturbance. These are among the most prominent effects, and by almost all writers they are looked upon as being the most common result of its administration. When this stage has lasted some time, the patient sinks into a quiet slumber, having however still more or less languor, and otherwise retaining the foregoing influence of the drug. In other cases when a full dose is given the foregoing effects are very brief and inconsiderable. The full soporific action of

the dose, quickly taking place. - While these may be considered the general effects of Opium, on the system of almost every individual, still, there are some exceptions. For instance, while a small portion may result in the creation of those most agreeable sensations, as before described, in by far the greater majority of cases, in others it may give rise to the most disagreable feelings and horrible imaginations - causing head-ache and restlessness, - hallucinations and aberration of the mind. Happily though in these instances and increase of the quantity administered, will generally correct the evil, by producing sound and refreshing sleep. - This concludes, all that time and space will allow me to say in regard to the vir-

of the drug upon the nervous system.
Were I to enter into an elaborate and ex-
tensive view of the subject, too much space
would be occupied and consequently too
great a tax would be made upon the patience
of those, under whose perusal this will fall,
which is by no means consistent with my
object. I will therefore briefly consider
its effects on the Respiratory and Circu-
latory systems. Though alike, when differ-
ent from each other, performing two sepa-
rate functions in the animal economy,
yet, as they bear such a strong relation
with each other — the fulfillment of our
being in a great measure dependent upon
the proper condition and regularity of the
other, — and especially as the action of Opium
is so intimately connected with both, I deem it the

best and most convenient plan to, treat them conjointly.— Although it was for a long time regarded doubtful, as to the true effect of Opium on the circulation, and many and various opinions were expressed in regard to it, the fact of its real effect, has been determined by the very simple experiment of Dr. Crumpe, to the satisfaction of all. He found, by an examination of the pulse, before taking a dose, and comparing the condition to that, after the drug was swallowed that a decided frequency had occurred. After some time however he found it to be again restored to its former state, and still later, that a diminution in force and quickness had taken place. This discovery, though as was before remarked, very simple,

yet, served beyond all doubt to show that upon his system at least, it was both a stimulant and a sedative; and after being sufficiently used was found on all, to produce the same effect. When therefore, a full dose is taken, the pulse becomes accelerated, full, strong and forcible, but is readily and easily compressed. Thus it continues until sleep comes on, when it gradually diminishes in frequency, and still later, the force and fullness are diminished. The breathing becomes, as the sleep grows profound, slower and stertorous, and the face of the patient is flushed. After these changes arrive at their height, which is sometime after the soporose condition has been established, the pulse again returns to its normal state, preserving a

regularity in force and frequency, as in health, and as the slumber wears away becomes softened, and gradually relaxed, and when the patient wakes up, it participates in the general depression, which always follows the full influence of the drug. — As the circulation is raised, indicated by the frequency of the pulse, so is the breathing also quickened, and sometimes especially in children, the respiration is hurried. Again when the pulse becomes relaxed — the circulation calmer, — the respiration is less frequent. In other words, in the same proportion of the increase and diminution of the circulation, so is the frequency and slowness of the breathing, — The blood itself is also changed, according to the

influence exerted, imparting to the face a bright red color in the stage of excitement; and as the breathing becomes slower and stertorous during the soporific stage, retarding the access of oxygen, the face and other parts of the body assume a dark, and almost purplish hue. Indeed the latter condition, together with the hippocratic expression of countenance, are the chief diagnostic symptoms of acute poisoning by Opium. — Almost all of the functions are affected, but on the secretions its action is especially apparent; generally diminishing the activity of the function and consequently lessening the quantity of fluids secreted. But an entirely contrary effect seems to be exerted upon the secretory function of Perspiration; as there is

evidently increased by the employment of the substance itself or any of its preparations. The mucous secretions are more powerfully brought under its influence, as is shown by the dryness of the mouth and fauces, the heated and arid state of the alimentary canal and stomach which cause a most insatiable thirst, and a consequent use of copious draughts of cool water, to allay this distressing result of its use. The Schneiderian membrane, the conjunctiva and the mucous membrane of the lips, all exhibit the want of their accustomed ~~effusion~~ flow, by the parched and dry appearance of the latter and the roughness itching and unpleasant state of the former. And if the patient continue during this stage, or in any way

use the voice, he will be seriously incon=
=venienced by hoarseness, will have frequent-
ly to clear his throat, and moisten his
mouth and lips with water or some other
cooling drink. — Sometimes the Kidneys too
participate in the effects of its use,
as they secrete less urine, the color of
which is little changed. Instances however
are recorded, in which by the administra-
tion of Morphia "it was powerfully pro-
moted," and was discharged with increased fre-
quency as well as quantity. — On the
Liver its action is shown by the want
of color in the stools, — the proper function
being disturbed by its interference, and thus
prohibiting the natural color of the al-
vine evacuations. — The drug is of especial
value as a diaphoretic, the secretion of

Ed. Wood.

perspiration being greatly augmented by its use. Not so well marked is this affection when the patient walks about, but covered up in bed, the copious secretion flows from every pore, saturating completely the linen of the patient. — Almost every organ in the body, partially submits itself to this powerful agent. The stomach after being considerably excited, is diminished in its action. The performance of its regular duty is interrupted, and loss of appetite ensues.

Its morbid effect on the bowels is a prominent result of its use, as constipation always follows. The nutrition of the body, is impaired, and that function materially disturbed. By a large dose the muscles are brought to a state of relax-

ation; and occasionally the muscles of the bladder are so powerfully relaxed, that during the night and frequently in the day involuntary discharges of urine take place. Before the use of Chloroform, Opium, which was highly valuable for this effect, was used, when the performance of surgical operations was necessary.

It matters not, to what part it may be applied; its effects will still be the same being taken up by the circulation. When applied to the surface deprived of the cuticle, or injected into the rectum, by the nerves and circulation, it will operate on the whole system. The part on which it is applied, is affected first by stimulation then by a comparative want of sensibility. When a large dose is taken, the effects

are so largely increased. The whole system is so far carried from its normal state, and every part is brought so profoundly under its influence, that the condition of poisoning is produced. This state, hopeless for the medical profession, if not under very extraordinary circumstances can be readily diagnosed, and the patient if not too long under its influence, with proper treatment can be rescued from the arms of death. — Persons of a desponding and unhopeful nature, are by the knowledge of the pleasing effects which it produces, often induced to have recourse to its use to remove the disagreeable sensations, which so continually harrass them. And as it causes only a temporary respite, when the dose,

to keep up the unequaled pulings of plea=
sure. In this way the habit of opium-
eating is acquired; and as the sensations
of delight are succeeded by others of ab=
solute horror, when the stimulating in=
fluence wears off, he again turns to
this subtile source of solace, and is lead,
half unconscioncious by his infatuating
comforter, a willing victim to inevita-
ble destruction. Thus is established Chro-
nic poisoning; and the only means of
cure is gradual abstenence - the quantity
being daily diminished, until the sys=
tem by degrees returns to its wonted
normal state. There is no case, which
cannot be remedied however long the
habit may have been established so the-
re time to lessen the dose daily before ex-

Extreme old age sets in, by this means, aided of course by a strong resistance on the part of the patient.

The mode of operation on the system by opium, is through the circulation. Through the sensations produced are transmitted to every part of the body by the nervous system. It is first absorbed like all other medicines, which is the primary mode of its action. When applied to a nerve, it produces stimulation at first and after a time, in accordance with the same pathological law, causes a corresponding depression. It has been detected in the blood, in the urine, in the perspiration, and in fact in every secretion of the system. Thus it is not only carried to distant parts through the blood

agency of the blood, but also by the aliments. The sensibility of the nervous system is diminished, when the drug is persistently used; and indeed so far is this carried, that unless an increase of the dose is constantly made the drug will fail to produce its effects. The nerves become so much accustomed to its influence that they cease to transmit the impression to the brain, and sedation of that organ is the consequence. It is this cause which produces restlessness, tremor, discomfort and other extremely unpleasant and depressing feelings.—

—Having now treated ~~succinctly~~ of the various parts of my subject, I shall now proceed, in as brief a manner as possible to point out some of the numerous therapeutic applications. The physiologic

applications are so various, that in almost every disease, some symptom will demand its employment. One of its contra-indications, and one which is easily detected, is a determination of blood to the head, denoting excitement of the brain; and as this drug has a strong tendency to affect that organ, its use would not be indicated. But when the nerves of the brain are excited, when there is reason to believe that the disorder depends upon a morbid excitement of the nerves upon the brain; or when there is a depression of the nerves, the stimulation of opium should be resorted to, and in the majority of cases with the happiest effect, under its use, the pain will be relieved. As an anodyne it is in efficacy, not equalled by any other agent

When from any cause, violent pains occur in any part of the body, and local treatment has been attended with unsuccessful results, a full dose of this substance, or of any of its preparations, will relieve all uneasiness, correct the evil, and put the patient again at ease, by a sound and quiet sleep. In nausea and vomiting, attended with violent retching, this will remove the distress, when many other remedies have failed. In spasmodic diseases; and in that alarming affection Delirium Tremens, it is our main resort.

But, to enumerate all cases in which it would be applicable, would be more than time and space would justify. As was before remarked, there is scarcely any disease at all, in which an abnormal

condition it may depend, that during some of its stages, opium would not be beneficial.

The preparations of it are so numerous, that the practitioner can have no difficulty whatever in selecting one which is applicable. The choice of the form of the medicine, and of the dose, must depend altogether upon the condition of the patient, and the circumstances of his case; and the propriety of when, and how the dose should be administered must of course be left to the careful consideration and correct judgement of the physician.

Very respectfully,
Wm Henry Robins.

University of Md.
Jany. 1860.

An
Inaugural Dissertation
on
"Intermittent Fever"
submitted to the examination
of the
Provosts, Regents, and Faculty
of Physic
of the University of Maryland
for the
degree of Doctor of Medicine
by
Francis Marion Slemons,
of
Maryland.
February- 1860.

Of all the ills which flesh is heir to, in this portion of our beloved Land, "Eastern Shore of Maryland", none is more frequent than intermittent fever. Hence from us more than from any others, it deserves particular attention. Consequently as it is a duty incumbent upon all who wish to receive a "Diploma" from the "University of Maryland", to prepare a "Thesis" for the inspection of the "Faculty" and other "Officers" of that Institution, I have chosen this, Intermittent fever, as the subject

of mine: and although I can write nothing, which has not been known to the Profession for many years, still I hope the writing of this will not prove uninstructive to the writer.

Intermittent fever is characterized by febrile paroxysms, occurring at stated times, and by the absence of fever between the paroxysms. The period intervening from the end of one paroxysm to the beginning of the next is called the intermission, and the period occupied by one paroxysm and the succeeding in-

termission is called the interval. As the paroxysms vary in length, the interval may be the same and the intermissions unequal. Although the intervals are usually constant in each case, they vary in duration in different cases. Hence we have a division of Intermittent fever into Species. Of which there are several, the most common being the Quotidian, the Tertian, and the Quartan. In the Quotidian the paroxysms occur daily with an interval of about twenty four hours; in the Tertian every other day, with an interval of forty eight hours; and in the Quartan every third

day, with an interval of seventy two hours. These three species have some other peculiarities. thus, the quotidian usually begins in the morning, the tertian at noon, and the quartan in the afternoon. Other species are mentioned by authors, as the Quintan, Sextan, Septan, &c. These are however very rare and seldom if ever seen in this country.

The symptoms, which accompany a paroxysm of intermittent fever, when regular and fully formed, may be divided into three stages. the Cold, Hot,

and Sweating stage, which usually follow each other in the order mentioned, and are distinguished by numerous signs occurring during the progress of each. Often, but not invariably these three stages are preceded by a fourth or premonitory stage: the symptoms of which are feeling of languor, stretching, yawning, feeble appetite, constipated bowels, and other symptoms indicating that some of the powers of life are impaired. Occasionally this stage is wanting, and the paroxysm seizes the patient in the midst of good health.

After the premonitory stage passes off, the symptoms of the cold stage begin to make their appearance. The patient has a sensation of chilliness, especially in the limbs and along the course of the spinal cord. These gradually increase and extend over the whole body, often becoming severe and distressing. The patient shivers and trembles, the teeth chatter and hair sometimes stands on ends. The tongue is pale and moist; all desire for food is wanting; the pulse is small, sometimes quick, at others slow, irregular and feeble. After a shorter or longer period this coldness begins to abate and rigors alternate with flushes of heat, which

gradually increase until the whole surface becomes preternaturally hot. The face becomes red and turgid; the temples throb; head-ache is induced; tongue dry; urine scanty and high colored; the pulse full, strong, and rapid. These are the symptoms of the hot stage. Then after a brief period another change comes over the patient. The sweating stage sets in. Now the skin recovers its natural softness and moisture; perspiration begins gradually to appear and soon a universal sweat breaks forth over the whole body. The pains depart; tongue becomes moist; the flow of urine is increased, the pa-

spiration terminates gradually and presently the patient seems well again.

The whole duration of the paroxysm varies greatly, sometimes lasting only three or four hours, at others running on to even eighteen or twenty. The paroxysms vary also in other respects, some are severe, and the symptoms are such as we have just described: in others the cold stage is slight and exhibits few of the symptoms given above, while the hot and sweating stage are severe: in others again the whole paroxysm is slight, but few of the characteristic symptoms of either stage being present.

During the intermission, as a general rule, the patient, though without fever, is not free from all signs of disease. He is languid; easily fatigued; has pains in his back and loins; uneasy sensations in the head and epigastrium; a poor appetite, a sallow complexion, and a sickly look. To this rule however there are exceptions, sometimes the patient is free from any signs of disease during the intermission, and feels as well as usual.

We stated before that in the several species of intermittent fever the paroxysms return at the same

hour of the day. But this is not strictly true. The paroxysm of to day instead of beginning at the same time as the one of yesterday may be an hour or two earlier or later. When they come earlier they are said "to anticipate", When later "to postpone". The paroxysms seldom occur during the night. The attack generally comes on between the hours of eight in the morning and eight in the evening.

The terminations of intermittent fevers are various. Occasionally if not aided by art they terminate in a few days in recovery. This is rare, most commonly when the

disease is allowed to continue unmolested for some time it tends to terminate in Remittent or Bilious fever. And sometimes, though rarely in death.

Intermittent fever may be sthenic or asthenic. The first of these, sometimes improperly called "Inflammatory", is characterized by a strong, full pulse, florid face, and pure, rich blood. In the second, sometimes known as the "Feeble, Typhoid or Malignant" the symptoms are the opposite of the former; there is depression during the chill, a feeble reaction, feeble and frequent pulse, a dusky hue

of the skin, and an impoverished or scanty blood.

The complications of intermittent fever are not unfrequently numerous. Of these, inflammations of the Spleen, Stomach, Bowels, Liver, Lungs, and Brain, are the most frequent and constant. The symptoms, which indicate the presence of these, are similar to those found, when each of these affects the system as an idiopathic disease. Thus for instance, when the stomach is inflamed, there are burning pains and severe heat in the epigastrium, cravings for ice, and an undue amount of irritability.

The lesions left after an attack of intermittent fever are various. Indeed if an attack be speedily checked, no change will be found in any of the Organs or tissues of the body. If allowed to run on indefinitely, serious effects are often produced. Of these the most frequent is enlargement of the spleen. The liver too is sometimes found enlarged. Dropsy often follows an attack of this disease, and insanity occasionally results from it, but very rarely.

The causes of intermittent fever must now engage our attention.

First the predisposing causes.

Of these debility has a powerful influence in bringing about the disease in those who are exposed to the exciting causes. A healthy person may expose himself to the action of Malaria without contracting the disease. But so soon as he becomes debilitated by any means he is almost sure to be attacked by intermittent fever. Dr. Hudson says "The strongest predisposing cause of all is the occurrence of the disease itself", and says Dr. Wood "when an intermittent has been checked by any means whatever, it has a strong tendency to return." Of the exciting cau-

ses. The chief and primary exciting cause consists in certain emanations from the surface of the earth. Formerly called "Marsh miasmata", but now "Malaria". This is a specific poison and produces specific effects upon the human system. The circumstances which seem to be essential to its production are heat and moisture, and some authors assert vegetable decomposition.

A certain degree of heat seems to be necessary to its production from the fact that it neither appears within the Arctic circle

nor during the colder seasons of more temperate climates. Malaria is seldom generated in a climate where the temperature is below 60° of Fahrenheit. And the nearer we approach the equator, the more abundant and pernicious does the poison become.

A certain degree of moisture is also necessary to its development. Too much moisture acts as a preventative. This we infer from the fact that during heavy rains very little "Malaria" is generated, but so soon as the rains have ceased, and the water begins to dry

the poison begins to be afloat in great quantities. Surfaces deeply covered with water evolve less of the noxious fluid, than those which are partially so covered. And in marshy districts, where the soil is constantly moist, but not covered with water very much "Malaria" is produced.

Of vegetable decomposition. As this is almost constantly accompanied of heat and moisture, it was for a long time thought necessary to the production of the "Malarious poison". There are now however, we think, sufficient reasons for adopting the opinion that it is

not necessary, but only a powerful assistant. Says Dr. Walson in relation to this subject, "the rotting cabbage leaves of Covent Garden, and those which taint the air of the streets from the neglected dust holes of London during the hot weather of Summer, give rise to no ague". Dr. William Ferguson says, "that this peculiar poison may abound where there is no decaying vegetable matter and no vegetable matter to decay". And in support of this he brings forward many reliable facts which we have not room to insert.

Of the precise nature of this deleterious agent very little is known. It has however some peculiarities, which

it is necessary to know in order to be able to avoid its deleterious effects. These may be classed under six heads.

First. It is more dangerous at night than during the day.

Whether the poison is more concentrated during the night, or whether the body is more easily affected at that time, I do not know. One thing however is certain, it is more pernicious during the hours of darkness. Persons on shipboard lying near some Malarious district are often free from intermittent fever so long as they spend their nights on shipboard, but if they stay on shore at night they are almost sure to have

an attack of the disease in a short time.

Second. "Malaria" loves the ground. This we know from the fact that persons, who sleep in the upper rooms of a dwelling in sections of country where the poison rages, are much more free from the disease, than those who sleep lower down. Although all may be otherwise under the same circumstances.

Thirdly. It can be moved by the wind. This can be accounted for by the fact that certain places, seemingly free from its effects, suffer much from its influence. A knowledge of this fact is of value in determin-

ing the situation of a camp, town, or dwelling.

Fourth. "Malaria" loses its noxious properties by passing over a surface of water.

In support of this Authors state instances of crews, who were free from the disease so long as they remained on shipboard, but were attacked as soon as they went on shore.

Fifth. "Malaria" is attracted towards and adheres to the tops of large trees.

This property which is a source of peril to those who are compelled to dwell beneath such trees, may

be made a means of protection if rightly used. Thus by locating a town or dwelling in such a position, that a piece of woods may lie between it and marshy places around, intermittent fever may be prevented to a great extent.

Sixth. The effects of "Malaria" may be prevented or lessened by cultivation.

That land may be in a proper state of cultivation, it is necessary that it be properly drained, which of course causes many places which were formerly the haunts of "Malaria" to be free from it.

The diagnosis of intermittent fever is simple and easy. The only diseases with which it is at all likely to be confounded are Hectic and Remittent fevers.

From the first of these it may be known, from the fact that the paroxysms of Hectic occur very irregularly, that the sweating stage is prolonged during the night, and from the organic disease of which the Hectic is a symptom. From the second it is known, only by the fact, that in Remittent the fever continues during the whole interval, there being no intermission.

The prognosis is favorable as a general rule. If the paroxysm anticipate, it is an unfavorable sign; if it postpone a favorable one. The appearance of an herpetic eruption about the lips is favorable. And the more complete the intermission, the more readily does the disease yield.

The treatment of intermittent fever consists of the treatment during the cold, hot, and sweating stages, and during the intermission. In the great majority of cases, in this climate, the only part of the treatment

which we as Physicians are called upon to use is that during the intermission. Still in a few instances our assistance may be demanded during the paroxysm.

First then during the cold stage. The patient should be put in bed, and warmly covered. Hot drinks, such as warm lemonade, may be given, hot bricks applied to the feet or along the back, or a vapor bath. A grain of Opium has often been given during the paroxysm with the effect of shortening it.

So soon as the hot stage comes

on cold drinks, effervescing draughts every two or three hours or similar remedies may be administered. Blood may be taken either from the arm or by cupes, if the pulse is full and hard, and other symptoms demand it. This however should be done with care and after due consideration. If the patient is very feeble gr x of Pulvis Ipecac, et Opii may be given. During the sweating stage but little need be done. Diluent drinks to promote perspiration: and when it has continued long enough, dry the

patient with towels, in order to check the profuse sweating, which when long continued, has a tendency to debilitate.

By far the most important part of the treatment, as I intimated previously, is that during the intermission. It is however very simple.

In the first place if the bowels are constipated, as is usually the case, they must be evacuated by a cathartic. The best is the Hydrargyrum chloridum Mite. To an adult of robust constitution from viij to xij grs. may be given

or x gr. of Calomel with x grs. of Rhubarb or Jalap. If the Calomel fail to operate in five or six hours, it may be followed with advantage by Epsom salts, Castor oil, or Magnesia. It is best to give the purgative during the intermission. If however the intermission be too short for the purgative to act and allow time for the administration of a sufficient quantity of the antiperiodic, the purgative had best be given during the paroxysm. In females and in children the dose of the cathartic must be in proportion to the

age and strength of the patient.
After the purgative has acted
sufficiently, we must begin at
once with the antiperiodic
which we intend to employ.
The best is the Sulphate of Qui-
nine. Cinchona with other of
its preperations have been us-
ed, But the profession gener-
ally prefer the Sulphate of
Quinine. One reason for this
preference is, that from the
smallness of its dose, it is
much less apt to irritate the
Stomach. From xij to xxiv grs.
of it may be given during
the intermission, according

to the severity of the case. Generally from X to XV grs. will be sufficient during the intermission. The best manner of administering it is in pill or solution. The latter best effected by adding to the mixture a few drops of dilute Sulphuric acid, this causes the Quinine to become soluble in water. The quantity usually given in one dose is from j to iij grs. every one or two hours. This practice will seldom fail to check the disease in a short time.

Some practitioners, especially those in the Southern and Western part of this country, recom-

mend much larger doses, from XXX to LX grs during twenty four hours. This practice is not however free from risk - and but few, if any cases of the disease have been found in which smaller doses persevered would not have proven fully as effectual.

If from irritability of the stomach quinine cannot be retained, it may be given in enema - To produce the desired effect when thus administered, it must be in much larger doses than when given by the mouth. It may also

be administered endermically, when there are any indications to prevent its being given otherwise. After the paroxysms have been checked in this manner, it will be expedient to keep up the effects of the antiperiodic for a few days. this may be done very effectually by means of the comp. cinchona powder, recommended by Dr Chew, and used by him in the Balt. Infirmary. It is composed of Pulv. Cinchona Bark ℥j, Carb. of Iron ℥jj. Pulv. Allspice ℥j - ℥j of the mixture may be given every two hours, continued for several days.

Other remedial agents besides the preperations of Cinchona have been employed with success in intermittent fever.

Of these Fowlers solution of Arsenic, the Liquor Potassae Arsenitis of the Pharmacopoeia, is the most used and the best. It is given in doses of gtts. x, three times daily, and continued until the disease is arrested, or until oedema of the face or oppression of the stomach evince the action of the medicine.

Other substances occasionally employed are some of the salts of Iron and Copper, Dog wood, Wild

Cherry and Willow Bark, also all the simple bitters, such as Quassia, Gentian, &c.

Another manner of treating intermittent fever consists in making a strong impression on the system just before the expected paroxysm. One means of effecting this is by administering an emetic so that it will be in operation at the moment when the paroxysm is expected, thereby supplanting the disease. Opium in large doses also acts upon the same principle, by powerfully stimulating the system. Brandy or

Ether act in the same manner.
Large Blisters placed on the extremities, so as to be producing their desired effect at the time when the paroxysm is expected may prevent its recurrence.

In order to avoid the occurrence of this disease as much as possible, miasmatic districts should be avoided, more especially during the latter part of summer and first of autumn.
If this, from any cause, is impossible the morning and evening air should be shunned, and take care not to sleep at

night with the body exposed to a current of air or in the lower rooms of a dwelling.

Another sometimes effectual means of preventing the disease is to keep the system under the influence of Quinine or some other antiperiodic remedy. To do this a patient should take j or ij grs. three times daily, of the Sulphate of Quinine or Cinchona, or from XX to XXX grs. of Pulv. Cinchona Bark mixed in water or Brandy and water early in the morning during the existence of the malarious poison in large quantities.

An

Inaugural Dissertation

on

Phthisis Pulmonalis

Submitted to the Examination

of the

Provost, Regents

and

Faculty of Physic

of the

University of Maryland

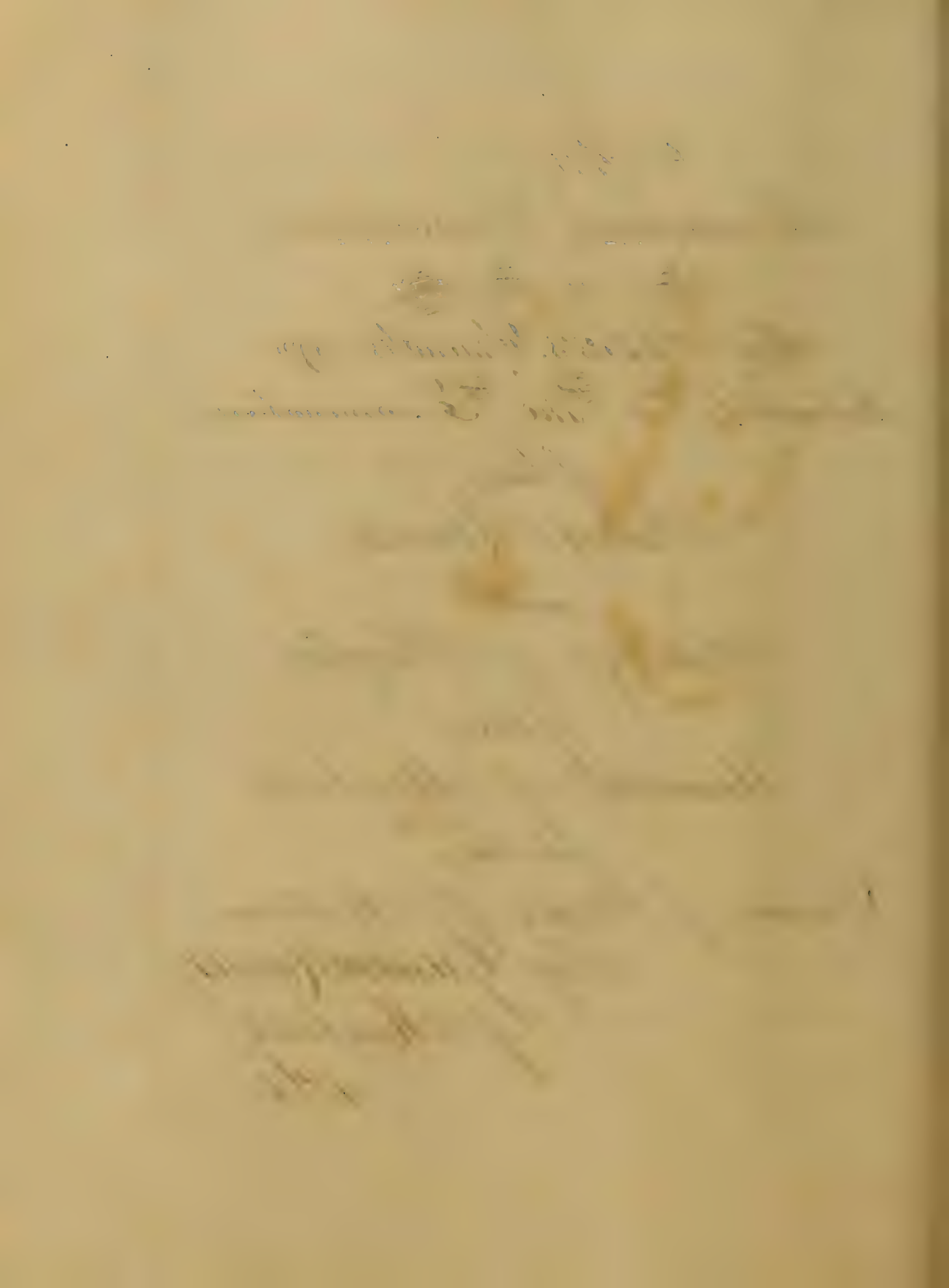
for the

Degree of Doctor of Medicine

By Gustavus Canter

of Maryland

1810



Dedicated

to

Prof. Thomas Chew

Professor of Practice

In the University of Maryland

In appreciation

of his

Great Kindness and

Indefatigable Labors

in behalf

of my instruction

in the art and science

of Medicine

By the Author

The period has at length arrived which to the Students of Medicine is most momentous. Now now make on me the final demand for an evidence of having improved the talent entrusted to my care during this time. I have had the pleasure to ramble in the halls of Science over which now presided.

On discharging this duty which to most Students is never pleasant, always disagreeable, and of doubtfull ability; I am perfectly aware that you do not demand of me original matter on a subject which have been before the world for centuries, and to its illucidations and development have

engaged the minds of the Seions of the
Science of which I propose to become
a member I have carefully and
diligently investigated truth where
ever she was to be found, and have
in the short probationary period
of two sessions become acquainted
with the elementary principles which
are the chief purpose and duties of the
young devotee of his Science. to gain:
in order to fit him for the accomplish
ment of that ulterior end for which he
strives; that is to obtain an exact and
intimate Knowledge of the art and
Science of Medicine
The matter which propose to bring
before your notice then will be

drawn from the most truthfull authors without entering into any polemic discussion whatever

This disease so mercyless so distinctive so dreaded like the plagues of nations sweeps over human life leaving its pathway rich with tears and dotted with graves. It comes with relentless fury claiming as its victims the young, the most gifted and the most beautifull of our race, dealing out to man the cup of bitterness and sorrow. When death instituted Phthisis as one of his means for conquering mankind he achieved one of his most signal victories for he seem to encase it with a covering but little suspicious

to the prayers and sorrows of friends and the admonition and skill of physicians. It seem to be pitiless. Parents have knelt before it and in vain plead for their children. Sisters have bowed at its iron throne and with tearful eyes and bleeding hearts besought it to revoke the mandate which consigned a brother to the grave, but in vain, whole churches, whole nations have been unable to soften its heart of steel and move it to one deed of mercy and compassion. and even the physician who under Heaven is the ministering angel to ease the sufferings of humanity, to restore health and strength, and to invigorate & prolong

life, even his skill and ministrations are defeated and laughed to scorn.

But without pausing longer to make any general reflections on the fatal and almost hopeless character of the disease and the sad havoc it produces among the choicest of the human race, I shall proceed to inquire into its pathology.

Phthisis consists in the sense which the term implies, the development in the human lungs a substance called Tubercles. formerly this term was employed for numerous other pulmonary diseases resembling somewhat phthisis in the sense now generally employed.

I shall first speak of the diagnosis

of the disease and the first means in our power and most useful is Auscultation and Percussion. This mode of diagnosis is was for a long time unknown and consequently not employed. But for the unfaltering labors and investigations of the renown and celebrated Laennec, it was he who first applyed auscultation and percussion to diagnose and detect the presence and condition of the tubercles in the lung. His discovery has been of incalculable benefit to Medical Science. It was like a new sense given to our art and probably served more than any other single discovery in the present century to extend the boundaries of

medical knowledge and to give precission to what was before but vaguely known He performed it either by directly applying the ear or by means of the Stethoscope to the chest but prefering the former mode and immediate auscultation is now generally performed unless under some peculiar circumstances.

Now on applying the ear or Stethoscope to the chest at different points or directly over some portion of the lungs; what sounds do we hear if they be modified any way. By the presence of or effects of tubercles, first if the deposition of tubercles is considerable, you will percieve dullness on percussion. under

the clavicle and upon that bone, and
this sign is strengthened if this dull-
ness be decidedly greater on one side
than on the other. and particularly if
greater on the left; feebleness of the res-
piratory murmer also may be heard
below the clavicle. Vocal resonance
is also increased towards the humeral
extremity of clavicle. Next on applying
the ear or hand under the same bone you
at once perceive an increase vibratory
motion from the voice. These signs
we learn whenever they are present indi-
cate pretty certain the presence of tu-
bercles

After the deposition have extended
further we hear what they call the

mucus and sibilant ronchi. The first of these is called caused by the bursting of bubbles of liquid in the small ramifications. The latter is a bubbling or crackling sound. We often hear another called friction sound caused by the formation of false membrane. Now after the formation of the cavity we hear the Cavernous sound or blowing sound as it is sometimes called, or gurgling sound as when the cavity is partly filled with liquid. Cavernous respiration and resonance of the voice. Then Pectoriloquy in which the voice seems to come directly from the walls of the chest, and again we hear a sound

called amphoric, caused by the voice in a large cavity communicating with the bronchia by a small aperture; next we hear metallic tinkling ascribed to the passage of a bubble of air through the liquied in the cavity, this we can often detect by the sound of fluctuation, produced by coughing, often the upper part of the chest is contracted or sunken and there is less movement of the ribs in respiration; This we learn to be owing in part to atrophy and shrinking of the pulmonary tissue, and partly to the formation of a false membrane between the pleural surfaces, and the contraction which

it undergoes in the process of organ-
ization.

Having now spoken of most of the
constitutional signs in regard to
the aid in diagnosing the disease
by Percussion and Auscultation
I shall now mention some of the
physical signs; after which I
shall mention some of the anatom-
ical characters, as kind, form, pro-
gress, and cause of tubercles, dura-
duration and nature of disease,
predisposing and exciting causes,
prognosis, and of the treatment.
Among the set of physical symptoms
first we see cough, and after awhile
expectoration commences, This symptom

is a very frequent attendant in this disease, though sometimes may be absent throughout the whole disease and again only present during the last stage; but most always accompaning it throughout from beginning to end; greatly annoying the patients during night and preventing sleep The increase of tubercles in the early stage is probable the result of bronchial irritation, caused by this increase, which act as foreign bodies in the lungs. Cough generally increases as the disease advances; the cause of this as Authors teach us is partly the necessity for discharging the contents of the vomicae

and partly also by the bronchial inflamation induced by the contact of the irritating tuberculous matter with the mucous membrane in its passage from the vomicae through the bronchial tubes and trachia. The peculiar and distinct Sputa comes from the cavities formed in the lungs, and is among the most prominent Symptoms of Phthisis, which consists of pus and liquified tuberculus matter; which according to Louis is indicated by the yellow streaks. In the last Stage the pus is of a reddish or brownish appearance, and portions of the pulmonary structure and unchanged

tubercles have been observed in it
derived from the falling in of the walls
of the Cavity during their enlargement
Dyspnœa though sometimes attends
this disease, is a less prominent symptom
; sometimes & it may be absent throug-
hout the course of the disease
and again in others may be present
in the last and sinking stage;
but when occurring, being owing
to an insufficient change of the
blood in the lungs, from venous
to arterial Sometimes when compli-
cated with pleuritic effusion or
Pneumothorax, pain in the chest
and not uncommon; as the patient
may complain of this even before

any other symptom manifests itself

Hemorrhage is one of the most
prominent and frequent symptoms
Authors tell us that obstruction of a
portion of the vessels of the lungs
necessarily produces congestion
in other parts of the organ, which
is the immediate cause of hemorrhage
But in most instances of copious
hemoptisis which occurs and ascribed
to the opening of a blood vessel, in
the course of the pulmonary disor-
ganization. As to its frequency Louis
observed fifty seven out of eighty
seven cases. he says hemoptysis is
"indicates in a manner infinite
probable whatever may be the period

of its appearance the presence of tubercles in the lungs" though it do and may occur, without their presence of tubercles; and inversely, tubercles and phthisis may be present with the haemoptysis occuring at all Frequent pulse, fever, night sweats, and the latter of these symptoms generally accompany this disease throughout, and is generally very profuse, the pulse is very much accelerated by exertion, fever and night sweats are often extremely distressing; giving rise to so much discomfit and exhaustion upon the patients awakening, so that he often dreads going to bed Emmaciation without any apparent

cause, looks verry suspicious of Phthisis. Laryngeal symptoms may appear before the ordinary symptoms of tubercles in the lungs; and sometimes the fatal issue; and may also prove an immediate cause of death through suffocation. Of the nervious symptoms the patient in most cases is intirely exempt. He is allways elated by a "delusive hope"; he either believes that he will recover, or is calmly resigned to the fatal issue. The powers of self-conception in this Phthisis, when the patient is unwilling even in the last stage of the disease lying upon his bed exhausted breathless and scarcely able to speak; he

assures his medical attendant, that he is better and will soon be about again. Even physicians who understand the symptoms perfectly well, by that "delusive hope" are led to think and believe that will soon recover.

Among the many and various symptoms it is said, that suppression of the menses is very common in females, also that pregnancy arrests for a time the progress of the disease

The duration of Phthisis is variable. Some cases terminate in two or three weeks; or a few months, and many others run on for many years

On examining the lungs of a case of Phthisis, tubercles of different forms and kind are found, and the first we notice and called by most writers Miliary tubercles or Grey Granulations. They discribe these as minute roundish, shining, translucent, hard, homogeneous bodies often not larger than a millet seed from which derive the name) varying from this size to that of a pea, which appear often in great numbers

As in the first stages, they are usually greyish, and sometimes have a reddish or brownish colour. They are usually collected in small bunches or in separate masses, in which a portion

of the pulmonary tissue is inclosed and consolidated. In the latter stage they are mostly confined to the upper portion of the lungs and occasionally dispersed thickly throughout the whole organ, giving rise to great pulmonary irritation. Laennec says the same matter that forms the granules of the milliary tubercles is often also deposited in the cellular tissue of the lungs, in irregular masses, sometimes one two or even three inches in cubic dimension without definite boundaries, or limited only by the extent of the lobules, this he calls Gray tuberculous infiltration. He also discribed a colorless or rose-

colored substance, more transparent than the Grey matter, and of a jelly-like consistance, which he had observed to be deposited in small quantities, in the tissue of the lungs; in the intervals of the tubercules granules, and which he believed to be gradually converted into proper tubercules matter The grey translucent matter constituting, the first two deposits above noticed appear to undergo a gradual conversion into what they believe to be the proper tubercules matter The transformation commences in the Miliary granulations in a small yellowish white spot.

which most commonly appears at or near the centre and gradually enlarges until the whole tubercle assumes that character, in which we see them. In this state the little bodies are denominated Crude Tubercles. The yellow tubercle whether original or the result of transformation of the Grey, gradually increases by new accessions

The next change we notice is softening, which usually begins in or near the centre, and gradually advances towards the circumference until the whole tubercle is converted into a soft pultaceous yellowish mass not unlike pus in appearance.

At this stage the irritating properties of the confined matter produce inflamation of the adjacent parts, which at length end in ulceration; and thus opens a communication between the tubercles and bronchial tube, this matter being expectorated leaves a cavity which we call Vomica. By the progress of these changes, the lungs is at length so far destroyed as to have no longer able to perform its, the case consequently must die. But nature sometimes makes a bold effort to arrest the progress of affairs; as when the tissue around the cavity is healthy, its lining membrane en-

ses to secrete, the walls contract, and the opposite surfaces coming in contact, unite together and consolidate into a fibro-cartilaginous body, which is quite harmless in the lungs.

Various opinions have been advanced as to the anatomical history and origin of tubercles. Some say they are enlarged absorbent glands; others that they are the result of exudation into the air cells, to which they owe their shape. They are confined to no particular portion of the body; but are found wherever there are blood vessels to afford the material of which they are composed, whether in the vesicles, the cellular tissue.

/

the air cells, or between the lobules, or substance proper of the lungs
The most great point of dispute among various writers, is in relation to their origin. Many say and contend that it is the result of inflammation Among the opponents of the inflammatory hypothesis Stands Laennec and Louis, and the general opinion of the profession is at present against it. Now the cause of the formation of tubercles of Phthisis is as many believe to be owing to a peculiar diathesis, which favors their development, known as Tuberculous Diathesis. The nature and nature of this peculiar diathesis

is unknown. It may consist essentially in a certain lassitude of the tissues which leads to weakness or bluntness of function; so that instead of well elaborated material for the purpose of nutrition, there is separated from the blood a peculiar product of the lowest grade of vital force, with the tendency of degeneration fixed upon it which exists as foreign matter in the midst of living structure But this diathesis may lie dormant for a long time, until some exciting cause may develop it. Such as Pneumonia. Pleurisy, or any inflamitive disease; also long, and anxious watching, want of rest, confinement

in unwholesome air of a sick chamber, protracted mental anxiety, and no single cause perhaps has more power than this to forward and develop this disease. This disease is hereditary, and is handed down from one generation to another, or from parent to child, or perhaps may miss one generation and develop itself upon the following. These are among the many predisposing causes, and I may also place cold among these.

I have made previous allusions to attacks of inflammation as a cause to develop this disease; here cold may act in this way as well.

cause; but its most pernicious agency is probably owing to its long continued and steady application.

Insufficient diet, whether as to quantity or quality of nutritious properties living in unwholesome air, sedentary habits, unwholesome indulgencies, grief, anxiety, disappointment, long watching. Copious evacuations, abuse of mercury; are among the many predisposing causes. There seem also to be a certain age when persons are more liable to be attacked Louis places it between twenty and fifty; but there is no age exempt from it. It claims as its victims both the young and old

Sex seem also to influence women being more prone than men, or females more than males
When tubercles are once formed or deposited in the lungs, they are observed most always to run their full course, though every means be tryed to arrest their progress. Therefore the first plan in the treatment when you see a case threatened with Phthisis is to try to prevent the formation and deposition of tubercles and the best treatment is the nutritive plan; for as we truly know it is defective nutrition which brings about these pri-

many symptoms, and then is the time for effective and persevering treatment; the object being to increase and invigorate all the functions of digestion; so that the body may receive and digest as much nutritive substance as to equal or overbalance the constant waste from the system. The next plan if the deposition have already commenced; your object in this case being to prevent any further accumulation; and must guard the lungs system against their injurious influence during this progress.

Our object therefore in the first place

being to restore due vigor to the solids, and a healthy state to the circulating fluid. And for the accomplishment of this, exercise in the open air is the best, for restoring vigor to the frame. It should at first if the patient be very weak, be moderate, not long or continued, nor nearer than the patient can well bear, and gradually and perseveringly increased, as the increasing strength will permit. Cold weather should not be a barrier to the performance of this so important an object.

By clothing warmly and carefully protecting from wet, the patient in the first stage may venture

out in almost all seasons. Dr Parish says "Vigorous exercise and free exposure in the open air are by far the most efficient remedies in pulmonary consumption" It is not however that kind of exercise usually prescribed for invalids, but an occasional walk or ride in pleasant weather and strict confinement in the intervals from which much good is to be expected. Daily and long continued riding on horse-back or in carriage over rough roads, are perhaps the best mode of exercise. But when this cannot be commanded, unremitting exercise of almost any kind in the open air avoiding, even

to labour, will be found highly beneficial; nor should the weather be scrupulously studied, though I would not advise a patient to expose himself recklessly to the severest inclemencies of the weather, particular if the case be one of long advancement I would nevertheless warn him against allowing the dread of taking cold confine him on every occasion, when the temperature may be low or the skies overcast. It may be said that the patient is too feeble to bear the exertion; but except in the last stage when every remedy must prove unavailing, I believe there are few

who cannot exercise without pain,
and it sometimes happens that they
who are exceedingly debilitated
find upon making the trial, that
their strength is increased by the
effort, and that the more they exert
themselves, the better able are they
to support the exertion.

Perhaps the most and very important
means in hygienic treatment is a
proper regulation of the temperature
of the body, it should be guarded
by flannel next the skin, should
take care never to expose himself to
cold air while perspiring, and should
avoid partial currents of air as much
as possible, should remove to a war-

mer country, and of a dry and uniform temperature during winter. But while guarding against cold, he should be cautious about excessive heat. Dr Chapman says "I am fully well persuaded that in this city (Philadelphia) the greatest degree of mortality is in the early part of Spring and the close of Summer; the effects of intense heat being more baneful, than those of severe cold, and quite equal to the influence of the fluctuations in our normal weather" Diet also constitutes one of the most important parts in the treatment; the object being to sustain a vigorous tone of the

system, and at the same time to avoid the exciting influence of pulmonary inflamation and fever Should Recommend a generous diet it Should be nutritious, but not over Stimulating. The farinaceous Substances as milk, fish, oysters, eggs, and the lighter meats are preferable to any other articles, and occasionally some Stimulating drink Should be allowed to those who are previous accustomed to it. Mental influences are often beneficial in hygienic practice: for if the patient is labouring under any grief or anxiety of mind every effort Should be made to remove this depression

influence. The hopes of the patient should be encouraged, and he made as cheerfull as possible. In this way travelling owes a portion of its success as a remedial measure. Short sea voyages in interesting regions may be usefull in the same way.

Medicines avail less in this disease than good and proper hygienic treatment, nevertheless much good may be accomplished when judiciously employed.

If the patient be weak, feeble, and anemic you may often derive benefit from tonics; for this many recommend wild cherry bark tea

as having great influence over the digestive and nutritive and also nervous functions, and sedative action of upon the general circulation. The best form of administering this remedy as recommended, is in infusion, in the dose of a wine glassfull two or three times a day continued for months or even years with occasional intermission. Columbo, Gentiana, Prussia Hydrocyanic acid are also found useful by some. The chalybeates are sometimes of great benefit in anemic conditions: of the preparations of iron the Tinct chloride, Iodide and Ferri et Potassa Tartras are most useful.

But among the numerous remedies spoken of and proposed for the cure of phthisis by the medical profession generally, and also no less by the imposing Quack; none has proved to be so effecient as Cod Liver oil. Its observable effects are usually to improve the digestion to render the patient fatter & stronger to diminish the frequency of the pulse and check the sweats at night, to relieve the cough, and in fine greatly to ameliorate all the generally symptoms. But it does not act as a specific as some suppose, and is wholly incapable of producing by any direct influence of its own the removal of

the deposited tuberculous matter. But it invigorates digestion, improves the character of the blood, and by a peculiar power modifies the nutritive process, so as to obviate in a greater or less degree the tendency to the deposition of tuberculous matter

It has the power when other suitable measures are combined, of arresting the further formation of tubercles altogether. Cod Liver oil is one of the means of confirming the general health, and thus affording the best possible protection against the further progress of the malady, and enabling the system to withstand the depressing & exhausting influence

necessarily merlit upon it in the elimination of the tuberculous matter.

Dose for an adult one tablespoonfull twice die, for children a teaspoonfull as often. It should be persevered in for months or even for years. Should it continue to agree with the patient, and the disease not appear to be

. Sooner eradicated

. It is of the utmost importance in cases of supposed tendency to consumption to prevent the establishment of the phthisis The great object should be to invigorate the constitution, and for this end, any business where exercise is required, as that of a farmer, carpenter, seaman, engineer &c is generally preferable for such a person

to one of the sedentary trades or professions
An infant should never be allowed to
derive its nourishment from the breast of a
Consumptive or Scrofulous nurse. The frequent
use of the cold bath & friction to the
surface will often serve a useful purpose
in giving strength, and are more applicable
as prophylactics than remedies
because the system is more liable to
react effectually before than after the
development of the consumptive diathesis
Above all things as in guarding against
Consumption we should insist on the
necessity of vigorous exercise in the
open air

Yours truly

Baltimore Feb 9th 1841

An

Inaugural Dissertation

On Syphilis

Submitted to the examination

of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Horace Milton Heath

of

W. Virginia.

Respectfully dedicated

To

Professor N. R. Smith

In admiration of his sound

judgment and skill in

Surgery.

by the

Author.

Syphilis.

Of all the curses entailed upon fallen man, we know of none more degrading, more polluting, more vile and filthy, than that heading this sheet. Originating in man and somewhat strange, it is peculiar to no other species save that of the lords of creation. Like an avalanche it has swept from time immemorial, like some mighty tornado over the four quarters of the globe, finding victims in all clases of society. Although many writers, learned and distinguished contend that it is of modern origin, yet I, on the other hand, adopting the opinion of Doctor Grofs, am one

of those who are disposed to believe that the contamminating influences of this terrible disease dates far back into the primeval days of antiquity, when the accursed cities of the Plain were destroyed by an avenging, allwise and just God.

True, I have never heard our able Professor of Surgery, express his views as to (from) whence it came, but I hope I am not widely suffering from him when I say, it is my humble opinion, that this formidable malady was doubtless known in ancient times; and could the records of the past be unveiled by unveiled, we should find that it then existed, however much it may have

been modified or aggravated, since its first origin by the climates of the countries in which it occurs. But it is not for me to discuss so far ther a subject, which, researches for many years by those renowned and eminent in letters, have rendered important and of the greatest interest to us, (inasmuch as it strikes terror to the human race alone); because they have depicted it in living words with all the brilliancy that distinguished Talent and mighty genius can set forth to an admiring reader.

The terms Syphilis we are told is applied to a class of diseases which

commencing in the genital organs in the form of a sore of a specific character, may and often does invade the lymphatic ganglions of the groins, the cutaneous and mucous tissues, and finally also the bones, cartilages and fibrous tissues, and leaving an indelible impression, upon each and all as well as upon the system at large.

These different parts, however of which we have spoken do not all suffer at one and the same time, but it seems necessary that the poison should lie dormant in the tissues for awhile ere it bursts forth in all its malignity. From its history, we would

readily imagine that Syphilis is a specific venereal disease, contagious in character, always originating in the female, and peculiar to man, because we know that it cannot be produced in any of the lower animals by inoculation, as experience has fully demonstrated.

It is always the result of impure promiscuous sexual intercourse, and never arising spontaneously.

We are ignorant of the true nature of this poison, and can only judge it by its action upon the system when brought in contact with a part of the person and allowed to remain long enough to expend its

violence on the system. This much we know, That it always produces a disease similar To itself, and like That much dreaded pest, the Small Pox, it contains a virus ever capable of reproducing and multiplying itself by a process known as zymosis.

Says an eminent Surgeon "The smallest inconceivable atom brought in contact with an appropriate surface will speedily develop a disease which, if permitted to progress may occasion the most horrible consequences, both local and constitutional, Thereby contaminating the system To such a degree as to render

it transmissible from the parent to the offspring". How truly does this serve to verify the truth of the awful assertion that the sins of the father shall descend even to the third and fourth generations to be visited upon their children! When the process of fermentation shall have fully set in there is no predicting where it will end unless some effort be made to stay its [illegible] progress. The pus so far as we can ascertain differs but slightly from the ordinary pus - that is, - the pus containing the syphilitic virus - produced by the various forms of inflammation. We know that it may be yellowish

and thick, serous and plastic, mild and acrid, alkaline or neutral, and pure or mixed with other matter. The virus of this, too, like that of Small Pox to which we have already had occasion to refer will retain its vitality for weeks if kept secluded from the air in a tightly corked vial. This infecting disease shows no partiality, but attacks all from the aged parent to the helpless infant even in its embryonic state; thus all are liable to be attacked by it, nor does any preexisting disease rise up as a barrier, to prevent its action when once in the system. The Syphilitic virus may be transmitted in various

ways: first by sexual intercourse, secondly, by unnatural connection: thirdly, by the body and bedclothes of the person, fourthly, by surgical instruments and dressings, fifthly from water closets and chamber pots, and sixthly and lastly by the fingers of the patient. Hence, one suffering with this disease cannot be too particular to not apply the fingers to the mouth, nose or eyelids, after handling the affected part. Accoucheurs too, sometimes suffer when their fingers are abraded in examining the uterus of women who are affected with Syphilitic ulcers in the folds of the vagina. I believe that the action of the Syphilitic virus

varys in different cases and under
different circumstances, depending
upon the state of the inoculated
surface and the condition of the
part, property of the poison, and
degree of inflammation that may
follow. It is an established fact that
a distinct chancre sometimes takes
place in the short space of twenty
four hours after an impure connec-
tion, whereas in other instances, this
does not occur for seven days.
I believe that the action of the virus
is very short, and that like other zy-
motic poisons though imperceptible
for the time, begins to act at once af-
ter [illegible]

This may be proven by what occurs after performing inoculation on the skin of the inner surface of the thigh.

The term Syphilis is derived from the Greek words, συς a sow, and φιλεω I love; secondly from συν with and φιλεω I love, and thirdly from συφαλον meaning, a reproach, as stated by different lexicographers. Of these, the latter derivation, I am inclined to regard as the most correct of the three herein given.

Syphilis is characterised by three stages, viz., primary, secondary, and tertiary, or it may be divided into local and constitutional syphilis

With reference to the history of the disease I have no doubt but that the symptoms have been greatly exaggerated.

In Primary or Local Syphilis, there may be considered two stages. In the first stage, the incubation of the poison usually continues from three to ten days, at the expiration of which time, the second stage commences, an ulcer making its appearance. This may come on in four or five days, or may not appear for six months after the introduction of the virus into the system

Chancre.

Chancre, one of the great characters

tics of this form, is divided into the Hunterian or Indurated chancre, Non-indurated or Soft chancre, and Phagadenic or Black Lion chancre.

The Hunterian chancre begins as a pimple with a slight itching, and then rapidly becomes an ulcer. The virus begins to act immediately after contact, but is insidious, with little pain or itching: hence, some length of time may pass before the patient finds out the startling fact, that he has a true chancre forming.

We have said that the Indurated chancre begins as a pimple with slight itching; next we have a

vesicle, then a pustule and last by
an ulcer exposed to view by breaking
or falling off of the scab from
the pustule at the end of the sixth
day. It is always found on the sides
or body of the penis, never on the
prepuce. When this chancre we
find a dark ulcer with an areola
around its border: the ulcer appears
as if cut out of cartilage, has a
dense base, with its edges abrupt
and well-defined, as if cut out
with a punch. This goes on eating
deeper and deeper, but does not ex-
tend laterally very fast. It is resil-
ient and resisting, cannot easily
be compressed with the

profession. The third mass mostly re-
sembles a split pea or hemisphere
of cartilage. We have high author-
ity for saying that when the in-
duration begins on the fifth day
it will be complete in two or three
weeks. We found, now, changes from
the difference in the (?) ... quan-
ity of the tissue around, some yield-
ing faster than others.

The hardness is caused by the effusion
of coagulable lymph. supposed by Dr
Cabell of the University of Virginia
to be in the lymphatic vessels, and
hence is the first or initial stage
of Constitutional Syphilis, but
doubted by others of course the (?)

of lymph may be exceedingly thin and may even crackle on pressure around the chancre proper. The Hunterian chancre has but little pus, slight flow, little sanies, and is generally solitary; or if there are several, they result from multiple inoculation. It does not spread very fast from the fact of lymph preventing it from doing so; nor is it apt to be of the phagadenic order, unless the constitutional symptoms are greatly deranged. It grows with but little pain, and inflammation, or may have none. We can cicatrize it easily, but by so doing, we only shut up the virus in the system and cause it to produce

Constitutional Syphilis. There may result warts and excrescences from imperfect healing of the chancre, and these warts or excrescences are infecting, but we should bear in mind this is no proof that constitutional Syphilis proper is infecting or contagious.

Non-endurated or Soft Chancre.

This occurs on the prepuce or behind the corona of the glans penis, and on the orifice of the urethra, being on the mucous membrane.

The ulcer is shallow, has a soft base, its edges ragged, spreads laterally, and is accompanied with much heat and inflammation and is more superficial

An ulcer on or near the frenum is more likely to have a bubo, following it, because of the great absorbent power of the vessels there. The frenum should be cut if the chancre eats a hole.

The Black Lion, chancre, as its name would indicate at once to the student, is phagadenic and violent in action. Of this there are two kinds: The first is marked by violent inflammation, often producing death of the parts, they actually sloughing away. Here, the constitution must be vigorous. In the second kind the constitution is weak. There is great debility, and low vitality

and the part dies at once. In this, the inflammation is feeble, but sloughing takes place immediately and with rapidity. Its seats in the male, are the glans penis and body of the organ, in the female, the nymphae, clitoris, fourchette os uteri, lower lips of the os, and folds of the

A chancre in the urethra is usually soft, though it may be hard, from the fact of its involving the skin. The urethra should be examined always carefully, observing to press backwards from the meatus to the prostate gland. Another mode is to pass a number eight gum elastic bougie into the urethra, and in either case when

ever we find the most sensitive point there we may rest assured a chancre exists. The patient if inoculated should be inoculated in the groins, and if a chancre is formed we know that it is Syphilis, if no chancre however result, it is Gonorrhoea. The chancre is hard, irregular and ragged and the duration of its stages are variable. It continues from two to three weeks if left to nature but if well treated may be cured in from three to seven days, leaving a scar and depressed cicatrix.

Prophylaxis. It is far better not to indulge the animal passions, where one incurs great risk, but should one

for the hardihood to venture, he should
first wash the penis thoroughly with
soap and water, particularly the
prepuce and head. Should there
be any abrasions cauterize the
parts with Nitrate of Silver and
apply lint. Secondly circumci-
sion may be resorted to or a strong
solution of Tannic acid be used.
Diagnosis. This is very simple and
may readily be formed from a his-
tory of the patient.

Whenever sores occur on the prepuce
after coition, if they be not vesicles
and are grouped together like it is
it is herpes preputialis, and the
best treatment is yellow wash,

Bichloride of Hg. and Carb. of Lime and HO. The prognosis depends the variety of the chancre.
If it be Hunterian, we should tell the patient we will do the best we can for him, but that he may have Secondary Syphilis in spite of all that we can do.
Complications. Of these we have Gonorrhoea, Orchitis, Phymosis, Paraphymosis, Bubo &c. Treatment. This should be conducted with a two fold object. 1st Prevent the absorption of the specific poison into the system; 2nd Bring about rapid and effectual healing of the affected part. If during the first five days after

the ulcer shall have made its appear-
ance, it be destroyed, no other symp-
toms will appear, and hence we need
not use constitutional treatment.
We should be sure that it has not
exceeded the fifth day. If chancre
occurs on the skin the ulcer should
be pinched up, and cut off at once
with a bistoury, and the part cau-
terized well with Caustic Potash.
Or if the patient will not submit to
the former treatment, take a piece
of Caustic Potash and bore down
into the ulcer, observing to hold it
there about five seconds, then with-
draw it and immediately apply vi-
negar or sweet oil, which stops the

burning and neutralizes the KO. The Tawny pus should always be removed before applying the above remedies. If after this the ulcer is not red and healthy, next day, make use of the same treatment again: or if it assumes a healthy appearance let it be, or better dress it, either with Calomel Black Wash, Yellow Wash, Wine of Opii, or or Solution of Morphia. All of these are used within the first five days. Aromatic wine is perhaps the best local (treatment) application after this treatment, and we should remember to use it if possible though Calomel will answer should the former not be convenient. Now after five

days have passed by the treatment becomes different, and we may make use of the following remedies. Take a solution of Potassa or Soda, Acid, Nitrate of Hg. or Sulphuric Acid, and dip the point of a glass rod into either of these. A drop adheres on withdrawing it, which should be dropped right into the ulcer: let it stay for a few seconds, then neutralize it by applying Soda, or vinegar as the case may be; it now becoming necessary to check its action. Ointments or grease it should be borne in mind are not practicable in this disease.

It now becomes the duty of the practitioner to prevent constitutional Syphilis, and he should resort to the fol-

lowing Treatment. ℞. Iodidi Hg. gr. j.
Opii. gr. ss made into a pill, to be given
three times a day, which should
be continued until the gums be-
come affected, or the chancre is cured
at last. All that the Mercury does
is to improve the whole eliminatory
system and thus ejects the virus.
We wish to effect a cure by absorp-
tion or elimination of the poison
from the system, and this Hg. read-
ily does by exciting the emunctory
organs to greater action, thereby causing
the secreting powers to throw out by
elimination the poison from the system.
Hence the great value of this remedy in
this terrible disease. But beware of [illegible]

alism: if the chancre has been removed or ptyalism comes on we should wait as long as it took to produce ptyalism or cure the ulcer, and then put the patient again on the same plan of treatment. After this Prot. Sod. of Hg. and Iodide of Potassium should be given to prevent the occurrence of Secondary or Tertiary Syphilis, which otherwise might follow.

We now come to the treatment of

Soft Chancre,

which is pretty much the same as that for the Hard Chancre. In the first five days the chancre must be destroyed by the use of Caustic Potash or $AgONO^5$, the former being

best. Take this and apply it by brushing the ulcer over with a simple brush and pour on vinegar to neutralize its effects, shortly after which the patient is cured, if aromatic wine be applied to the ulcer in order to combat inflammation.

After the expiration of five days we should be on the alert for bubo in the groins, and prevent their appearance if possible by applying locally mercurial Ointment to the swollen part until it shall have totally disappeared: and should this produce eruptions over the groins, dry them up by applying bitriol water. The utmost endeavors now, should be to prevent

constitution of Syphilis, but should it follow, we can assure the patient it will be much milder than that occurring after the Hydrargyrum chlorure. Some give Mercury in this case, but others, prefer giving Tartar Emetic and Iodide of Potassium in combination to stimulate the organs of secretion the better. After having cured the chancre by the means already mentioned, ... and ... give Iod. of Potassium from 3-5 grs to die, and Tartar Emetic from 1/10-1/20 of a grain, for the term of three weeks. then intermit for the same length of time, and commence again using the same medicines as before for the

term of three more weeks, observing now to give very minute doses of the medicines, which cures the patient. We give Iodide of Potassium to act on the kidneys and the Tartar Emetic to act on the skin both of which are exceedingly desirable to produce the effect wished for; hence, these are given in combination. Next in order is the -

Black Lion or Phagadenic.

Chancre, more fearful by far than either of the two already treated. It makes its appearance and originates in constitutions of a different kind, as the luxurious and voluptuous who have a great amount

of lithic acid in the system. In this, violent inflammation comes on, the penis grows redder, deepening very rapidly and becoming much swollen, so that it may destroy the member in twenty-four hours. One would reasonably expect that there is much pain and agony in such cases, - actually may even amount to delirium. As a matter of course, the treatment should be active and rapid. Here, we bleed for two reasons; first to relieve pain and secondly to relieve tension and prevent sloughing. The patient should be bled to syncope, also leeching the parts freely, but should never leech the penis

If this fails to relieve the penis of blood, cut down into it observing to make lateral incisions, and not on the median line; by all means let out the blood, the great source of irritation and increasing agony. Next give Tinct. of Hellebore and Tartar Emetic in from 1/4-1/6 to 1/8 of a grain, every hour or half, as the indications may be. We should bear in mind that the treatment must be powerfully antiphlogistic and indeed rapid, in order to prevent the loss of the penis. We give the remedies just named, to reduce the heart's action in conjunction with depletion, which we first resort to. Locally,

apply with a brush over the parts in question a weak solution of Nitric acid, of Chlorinated Soda or a weak solution of Opium or rags wring from cold water, and if all of these fail, use a diluted solution of Nitrate of Silver.

This much dreaded form of the disease is caused by the constitution of the patient and not by anything peculiar in the poison. There is no necessity for constitutional treatment here, because with the cicatrization of the ulcer, the virus will have been wholly removed from the system. Lastly, There is that form of chancre called the

Polar Bear-

and which occurs in broken down constitutions, from some cause, no matter what. Some of these are from being fed with bad food, poorly clothed and living in a state of abject filthiness. Such are the persons subject to this form: in this the vitality of the part is so low that the lowest degree of inflammation is enough to kill the parts, gangrene commencing at once without any high degree of inflammation.

Treatment. Here the patient must die if not supported with tonics and stimulants, of which brandy and quinine should be given, in

the meantime brush the parts over with a solution of Nitrate of Silver or Nitric Acid, and apply warm poultices or tepid rags wrung out with Opium Solution. Observe that the Solutions are to be warm and not cold as in the preceding case, nor is there any constitutional treatment needed. These two latter chancres are treated on diametrically opposite plans it will at once be perceived.

Bubo.-

Is rather favorable and nature it would seem as it were, is trying to offer a barrier and start an ulcer, which shall throw off the poison, if the chancre has not the power

to throw it off as fast as required. A bubo then is nothing more than an enlargement of the lymphatic glands of the groins, caused by the virus becoming entangled there and stopped for a time.

Bubo is more common in Non-indurated than in Hunterian chancre.

Bubo of Hunterian Chancre.

This form of Bubo is small, hard, and not sensitive; resembles a waxen kernel, is non-compressible and resilient, and rarely inflames, unless complicated in some way; also we should add that it seldom suppurates. It is not specific if it does suppurate, hence its pus is not spe

cific. It should be borne in mind
& not readily forgotten that there are
apt to be several Buboes. They ap
pear with the induration or shor
ly after it, occurring between the
fifth and twentieth day, but often
much later.

Treatment.

The treatment it should receive
ed, must be conducted on the
same general principles as that
of chancre, of which, after all, it is
simply another form.
We should, if it is in the stage
of incubation, abort if possible, be-
cause now the disease is strictly lo-
cal, hence we abort before infection

ing comes on, or the constitutional symptoms arise. The local virus must be destroyed by the application of Tinct. of Iodine and compression, or the patient should be leeched directly over the Bubo, observing to extract as much blood as he can bear, in order to prevent the formation of an abscess, which but for such active treatment, may be produced. One leeching may discuss the Bubo, but if one does not, in two days, we leech again, apply cold, put on a compress and bandage, to promote absorption of the virus, bearing in mind to give in the mean-time Mercury

and Tartar Emetic. To produce cold we apply the evaporating lotion of Ether; also Laudanum and Lead-water to ease pain.

When fluctuation comes on, the employment of Hydrarg.m must be stopped at once. This should be remembered. The indications now are to let out the pus and apply a bandage, after it shall have discharged all of its pus. Whenever sinuses form they should be laid open in the usual way, and all fungous granulations are to be repressed with Nitrate of Silver and Sulphate of Copper, or they may be clipped off with scissors. We

should have remarked before this, that after the fifth day, constitutional treatment must be resorted to.

Bubo of Non-Indurated Chancre.

In this the Bubo is red, swollen, painful, inflamed, and resembles an abscess. It will suppurate, and has specific pus. There is only one bubo as a general thing, and this is not hard, nor is it resilient, but is more like a common boil. In hard chancre the local symptoms are few, and treatment simple, but here the constitutional symptoms are more

violent, and very dangerous. Soft just the reverse of this is true of soft chancres. Prognosis.

The prognosis is good as regards local disease, but bad for the constitutional if it does not before the fifth day. The treatment is conducted upon the same principles as already given, for Buboes of Hunterian chancres.

Whenever a chancre occurs in the urethra, if at the meatus, cauterize it with nitrate of silver, if lower down, a solution of Nitrate of silver of one fourth of a grain to the ounce of water, should be injected every two hours until a blood

discharge is caused, and then stop.
We have seen that Primary Syphilis, consists of chancre and bubo.
Consecutive is that which follows this, and in which the disease becomes constitutional, Secondary (and) or Tertiary Syphilis being produced. In Secondary Syphilis, the constitutional effects show themselves on the skin and mucous membranes. In the Tertiary form, the effects are produced by an attack on the fibrous tissue. At a variable period after the inoculation of Primary Syphilis, the first thing that attacks the patient is a soreness of the

Throat of the simple form, with pain redness and swelling, and the tonsils are enlarged.

There are four conditions of this affection of the Throat, viz., 1st Erythematous, 2nd, Simple, 3d Ulcerous, and 4th Excavating ulcers. The most common of these is Erythematous condition of the uvula, Tonsils, soft-palate and fauces; the ulcer may be pale, flabby, and scrofulent matter flowing, or it may be like a common ulcer, occurring on the tonsils, soft palate and buccal mucous membranes or gums. There may be an excavated ulcer, one which eats down, and may even

open the ranine artery, and has sharp and well defined edges. Either one of the first three, That is the Erythematous, Simple or Aphthous ulcers, existing alone without any tendency to spread, and the skin not complicated, may be cured without constitutional treatment, and must be treated accordingly in the following manner: for the first (Erythematous), simple gargles should be used, and the ulcerous parts touched with Nitrate of Silver; for the 2nd or Simple ulcer touch it with caustic, and the Third or Aphthous ulcer, Chloride of Zinc is the best to treat it with

Some authorities advocate Mercury in all cases. If on the contrary the skin is complicated with any one, of, or all of the first three, constitutional treatment must be resorted to, and the ulcers destroyed at once by the application of Caustic Potash, as well also the Excavating ulcer, which is like a hard chancre, only it has no hard base and in this last use simple mucilaginous applications. Corresponding to either of these four just treated of above we may have a Pustulous kind of eruption on the skin, which is of a raspberry color. This occurs after Soft chancre

but never after Hutchinson's teeth.

Treatment.

This should be warm Sulphur baths and the parts affected, rubbed with Sulphur Ointment; give also Iodide of Potassium, 3 grains, and 1/16 of a grain of Tartar Emetic, three times a day, for three or four weeks, and for sore throat, applications of Nitrate of Silver.

The next form of affections of the skin, is that of Copper colored blotches, in addition to sore throat, and are also on the face and indicative of hard-chancre. These go over to pimples vesicles and pustules, and are known as Psoriasis. We

We should now begin at once with Mercury, and treat the patient just as we would for hard chancre, giving internally Protiodide of Mercury, associated with Hyosciamus or Belladonna &c. and apply externally at the same time citrine Ointment ℥ij to ℥j of lard. Mercury should be continued until the skin improves or ptyalism ensues, then substitute Iodide of Potassium for it (Hg) and keep up the use of warm baths two or three times a week, in addition to application of the ointment, and make the patient wear flannel next to

the skin. Should this fail to make an entire cure, give Fowlers solution of Arsenic three gtts at a dose, three times a day, until the eyelids become swollen, and then stop the use of it for two weeks and begin with it again.

If the patient have a syphilitic ulcer or syphilitic Psoriasis, Hydrargyrum must not be used, but Chlorate of Potassa because no constitutional treatment is required, but we treat it just as we would any other ulcer of the mouth, with Nitrate of Silver, and washes. This form should be treated well and promptly. Again, Ecthyma or Rupia

the one pustular, the other vesicular in character, may occur upon the alae of the nose, upon the upper lip and chin: then again Lepra itself may occur, a scaly eruption, with copper colored blotches and rapid formation of epidermis, creating wiry scabs which, if shaved off, leaves beneath, painful ulcers disgustful and filthy to the sight. Or syphilitic tuberculosa may take place, being an aggravated form of Lepra, formed by large tubercles in the skin, which ulcerate causing violent pain and also great injury to the constitution. This form resembles Lepra

also resembles Melanosis. Such are the forms of Secondary Syphilitic affections of the skin.

The Treatment, is pretty much the same for all, using remedies to act on the functions of the skin and other emunctories. The treatment should be carried out at once and the patient cured without injury to the system.

The best agent is Iodide of Potassium, five grains Three times a day. Bichloride of Mercury and Tartar Emetic 1/16 of a grain each are highly extolled by some. As an ointment the White Precipitate is very good but we should be sure and make

the patient Take vapor. baths of Sulphur three or four times daily and rub with Sulphur ointment afterwards. Occasionally dissolution goes from the nose to take place, which are horribly offensive. First there is a snuffling of the nose, then a serous, and next a sero-purulent discharge of matter from the nose, rapid in its progress and may cause caries of the bone by killing the periosteum if not skilfully treated at the very beginning.

The constitutional treatment should be observed as before, but the nose must be relieved by snuffing and applying leeches to it

and the patient made to inhale
fumes of Mercury, Cinnabar or of
dilated Iodine, or other vapors
three times a day, and use oint-
ment and baths. We now come
to the Osseous and Nervous System
At a variable period Syphilis comes
on especially among sailors as
Rheumatism, feels like rheumatic
pains, is always increased at night,
worse in damp weather and usually
attacks the knees. The patient may have
intense periodical headache or muscu-
lar Rheumatism, the former caused
by exostosis on the brain and when
these are the symptoms we have a
right to suspect that it is Syphilitic

Rheumatism. It is now that the patient is in extreme danger. Again, there is another form causing periostitis, and which may attack the superficial bones, as the tibia, clavicle, frontal and parietal bones. It begins with a small oblong, obscure swelling, and after a while fluctuation takes place, followed by caries. Here we have an ulcer, and the bone exposed, and as we have seen often caries of the bone Iodide of Potassium is a certain remedy in this instance, and should be given in large doses being careful to increase the quantity of water as the dose is increased. Give as much

as 20 grains three times a day. Should this fail to effect a cure of this nocturnal Rheumatism, alkalies and quinine must be given. With reference to the time for taking these last remedies we are to be guided by circumstances. A cure may be expected in from six months to two years. But the above medicines are not always certain, there being instances in which they have utterly failed to effect a cure. Hence nothing is specific, and we must treat according to the state of the system, in some instances having to give tonics and even stimulants. Nitric acid and sulphuric, are some of the best

stimulants, and Iron one of the best Tonics in Secondary or Tertiary Syphilis. Lastly. We have Syphilis in children who may have taken it from their parents before or after birth, and may be obtained from the father, even though he never had Constitutional Syphilis. The child if syphilitic, will be weak, have discharges from the nose, vulva &c, the skin is shrivelled, the child is poor weak and puny and ecthyma or Lepra occurring on the face.

The prognosis is favorable and treatment easy: we should give the little Thing 1/8 of a grain of Grey Powders and 1/16 of a grain of Hyoscyamus,

and rub it with citrine Ointment
diluted. Or if the infant will not
take this, rub it well with Mercu-
rial Ointment. Baths are also very
good, and we should cause the babe
to take one of brandy and milk,
then follow next with alkaline
baths, also warm baths, two or three
times a day. The warm Sulphur
bath is highly recommended.
We should now soak a flannel
rag in Cod-Liver oil and bandage
the belly up with it, and put the
child with a wet nurse who is
healthy. In the meantime, the pa-
rents must both be put under the
constitutional treatment for

Secondary Syphilis. In order to prevent the nurse from catching the disease from the child, she should be directed to use nipple-caps, and wash them well always, before using them. Having adopted these means of treatment, a cure of the infant is usually effected in two weeks without any bad effects following.

An

Inaugural Dissertation

On Puerperal Fever

Submitted to the Board of Trustees

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for the

Degree of Doctor of Medicine

by

C. Cannibal Cotton

Puerperal Fever is a disease incident to childbed and is almost exclusively confined to that class of individuals. It is probably one of the most fatal diseases to which Lyngin. Woman are subject. Sparcing neither young nor old, rich nor poor, nor does it confine itself to the delicate an weakly for it attacks all indiscriminately. There has been a great many conflicting opinions in regard to the pathology of this disease. Some considering it from one cause while other attribute it to something entirely different, it is however certain, they all agree that it an inflamitory complaint attacking some or all the viscera of the pelvis and

Abdomen and sometimes extending to the alimentary canal. Its phenomena vary very much, and it has consequently been differently described and under different names, as Puerperal Fever, Childbed Fever, Peritoneal Fever, Dow's Fever, &c. Another Source of apparent controversity of opinion has been the prevalence of this disease epidemically and the varying characteristics of these epidemics. From a review of History of these epidemics of Puerperal Fever, it appears that there is some remarkable connection between them and Lying-in Hospitals, Not that the epidemics are propagated and nurtured by these institutions but, I refer to the fact that we

all the usual results of inflammation and involves all the tissues of the organs of gestation either singly or together. This inflamation most probably begins in the Uterus, overspreading the whole of the peritoneum and involving all the adjacent organs and tissues resulting in abscess, softning and gangrene and when the inflamation takes hold of the veins and Lymphatics which generally happens, we have purulent deposites in different organs, muscles, tissues, and joints, causing them to loose their vital cohesion and becoming soft white and easily torn. If we consider the character of the several Epidemics we will also find great diversity of opinion in regard to the

treatment of Puerperal Fever, some authority recommend Saline Purgatives throughout in the hands of another Practitioner another loses all his Patients [illegible] Bloodletting very extensively, while others lose all who are so tied, Calomel is the only Shure remedy in one Epidemic Opium in another &c Consequently there is one useful lesson to be learned by these Variations which obviously presents itself to our view. And that is, as the Symptoms are so varied in appearance in different Epidemics we must vary the treatment also And as some writers go still further, from the knowledge I can gain from the text Books causes me to agree with them in saying, that although

Puerperal Fever may exhibit local disease, yet it is not exclusively nor primarily a local effection partaking to a great measure of a malign character, being capable of being transmitted from one Patient to another by the Practitioner who attends them, Many cases of this kind are on record where persons being some distance apart have been inoculated with this infectious disease by the attending Physicians, And again, there seems to be considerable relationship or resemblance between Puerperal Fever, Erysipelas and Typhoid Fever These three often prevailing at the same time and under the same atmospheric conditions being most prevalent in the

fall and winter months, it has also been noticed and actually demonstrated, that infection carried from a patient suffering from Erysipelas or Typhous, to a Lyingin-Woman will in her give rise to Puerperal Fever. Dr Collins & Gabatt ascert that they have known many patients in the Lyingin-Hospital to be infected by Puerperal Fever from a patient in the same ward being effected with Typhous Fever. The cause of this disease is very obscure and what causes are really assigned it, is mere hypothesis, there is a great many conditions and circumstances connected with the disease which are generally considered its causes and if they are not are wonderful coincidents

[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
condition is supposed to be a cause.
Persons who are in a weakly or reduced
State at the time of Labor is more [illegible]
to it than the strong and healthy. Men-
-tal emotions also may be considered an
effective predisposing cause. Cold is
also admitted into the list. Portions of Pla-
-centa remaining in the Uterus and pu-
-trifying there may but does not always
give rise to this disease, but the most prom-
-inent cause is Contagion or a peculiar
condition of the atmosphere during an epi-
-demic. To a considerable extent as we have
seen the State of the atmosphere influences
the disease, for it is in damp moist weather

much more prevalent than [illegible]
-ther Whatever it is we term epidemic influ-
-ance it is certain the majority of cases
are attributable, in particular the worst
and most fatal, In order to discuss
this disease more accurately it has been
divided into different classes, [illegible] accordingly
as the opinions of authors differ. So also has
their classifications differed, but without
their variations of opinion and theorizing
the majority of them agree in dividing the
disease according to the situation of
the inflamation and the organs and parts
involved, and for my purpose I shall
use the division of Dr Churchill who
Styles it Inflamitory Fever and Malig-
-nant Fever, though he has another [illegible]

division, Gastric fever which I do not think it proper to include in this variety as Gastric Fever may prevail without and independant of the Puerperal State. The second forms of Inflammatory or Puerperal Proper is Inflamation of the Peritoneum, Puerperal Hystoritis, Inflamation of the Uterine appendages and Uterine Phlebitis. It must be remembered in the meantime that this arrangement is not a perfect one, though it is the best which can be formed of this disease. For either or all of these conditions may be present at one time or there may be only ~~one~~ but one. Inflammation of the Peritoneum, the Symptoms of this variety of the disease as does those of the other variety differ very much in appearance according to the dif-

[illegible] and vomiting with [illegible] the [illegible]
and increased sensibility of the Uterus.
The abdominal [illegible] is almost [illegible]
-ant attendant upon this [illegible]
not be [illegible]
Symptoms [illegible]
Cogastric [illegible] radiating
and spreading [illegible]
producing at times a dull [illegible]
at others exquisite shooting [illegible]
[illegible] transmitted to the [illegible]
Nausea and vomiting is set up which
owing to the straining efforts [illegible]
to aggravate the other symptoms. The [illegible]
from the beginning is accompanied with
more or less sensibility of the Hypogastri-
-um, this tenderness becoming [illegible]

and lastly the Excretion of Bile into the Intestines
[illegible] not Excretion
frequently set up from irritation extending
to the Alimentary Canal, this discharge
particularly when it becomes fetid is a
bad omen The Patient dies from
retention of urine but is generally relieved
by Nearly Evacuating the Bowels & the Cere-
bral functions generally become [illegible]
to the end, there is Sometimes Gangrene the
termination a Crimson or livid Flush
upon the Cheek this also is an evil omen
"I ordered Anatomy never Many
Various [illegible]
[illegible]
Most of these are the Product of ill
Ventilation [illegible]"

found diffused in different parts par-
-ticularly the cellular tissue beneath the
Peritoneum. Pus is frequently found in
the thoracic duct, and collected in
the cellular tissue around the Uterus
vessels, where they make their exit from
that organ. In the Diagnosis of this
disease it may be distinguished from
After-pains by the absence of Uterine con-
-tractions, acceleration of pulse, the in-
-creasing hypogastric uneasiness and
the greater comparative constitutional dis-
-turbance. The Prognosis is generally
unfavourable. Suspended Contents or
Inflamation of the Uterus comes next in
this division. This form of the disease
may be the only affection [illegible]

of Puerperal Fever, and may be the most prominent, though not the sole affection or it may be only of the several forms of local disease. As in the other forms, rigors is the first symptom which presents itself, though the development of the symptoms, vary very much according to the nature of the epidemic and severity of the attack, these rigors are followed by heat of skin, thirst, headache, and acceleration of pulse, which generally rises and for sometime stands to about 100 or 100 full and strong. The countenance is expressive of suffering but somewhat different from that of peritonitis.

Thing the patient complains of is an unusual sensation in the abdomen with [illegible]

rubber edge surface with [illegible]
borders, more or less of nausea vomiting
and diarrhoea is present. After the
case has continued for [illegible] with
out a change for the letter [illegible]
had been [illegible] and [illegible]
cold with a blue and sometimes yellow
tinge this is followed by rapid prostration,
cold sweats convulsions and death.
Hysterites may terminate in resolution,
which is a very favourable result and be-
speaks the mild variety; In abscess
which may open into some of the internal
cavities, and prove fatal through the in-
flamation it may produce; In soft-
ning which some authors speak of as
being very [illegible] in some epidemics;

Shows that the [illegible] of the Uterus and its appendages has undergone considerable Changes. The peritoneal Coat covering the Organ, often exhibits traces of [illegible] It may be red, [illegible] Reddened and [illegible] lymph or softened. The Organ is enlarged and softened, with purulent infiltration into its Substance, gathering itself into distinct abscesses which occupy from one to five inches in Space. Sometimes these puss collections have a blue or greenish appearance. And again the Uterus may be gangrenous in Spots, and [illegible] to a mere pulp, with a dark purple yellowish or grayish Colour. According to some Practitioners the point of [illegible] of the Placenta is the Spot where the mischief gen-

-erally begins and then extending itself to the whole organ and its tissues. In the [illegible]-der form of the disease [illegible] favourable and many cases [illegible] the Severer form especially when it prevails epidemically, the prognosis is very unfavourable ~~especially~~ almost every well-marked case proving fatal and the Patient dying with typhoid symptoms. Inflamation of the Uterine Appendages comes [illegible] in consideration including [illegible]-cluding the serous membrane and proper tissues of the Ovaries Fallopian Tubes and broad ligaments. The symptoms of this affection very much resembles inflamation of the peritoneal cavity, with which they are so often confused that it is not always [illegible]

[illegible] to establish the [illegible]
-cases The pain and soreness is not so general
and diffused as in Peritonitis, but rather
Confined to one or both of the [illegible]
If pressure be made over the parts there
will be a certain degree of soreness and hard-
-ness according to the extent of the inflammation
In acute cases the pain is very lancinat-
-ting and sharp passing down the groin
There is frequently some degree of swell-
-ting to be observed in the part [illegible]
which generally yields a [illegible] over
~~this part~~ the abdomen gives a dull sound
over this part Considerable light may be thr-
-wn upon the case by an internal vaginal
examination The upper and lateral [illegible]
-tions of the vagina will be found [illegible]

-mid and Swolen, and the enlarged [illegible]
and Fallopians may be felt through its [illegible]
-ieles The disease generally begins with [illegible]
-gers, thirst headache and acceleration of
of Pulse &c, presenting a Chain of Con-
-stitutional Symptoms Somewhat similar
to those of Peritonitis If [illegible]
marked there generally [illegible]
-austion and the attack may [illegible]
-ly fatal Should it be a lingering case it
may terminate either, in resolution or [illegible]
-curation If the attack terminates [illegible]
-lution the Fallopian tubes may from the
effects of inflamation adhere to the [illegible]
-ndings So that their functions may be
entirely destroyed The prognosis in these
cases as regards the life of the patient is [illegible]

generally begins about twenty four or thirty
six hours after labour the Patient in the be-
ginning complains in the [illegible] [illegible] or
less severe preceded or followed by [illegible]
After a [illegible] the heat of [illegible] [illegible]
ed and there [illegible] of the muscles of the
face and extremities, great thirst, dry [illegible]
[illegible], frequent vomiting of a yellowish green
Fluid rapid full Pulse and burned res-
piration The Uterus is tender [illegible]
and the Lochia & Milk are both suppressed
The Stomach is effected with [illegible]
and vomiting ensues, the Head which has
been slightly effected, now becomes more
deeply involved. and we find the Patient
in a drousy [illegible] sibility or violent dele-
-rium and agitation followed by [illegible]

Prostration. The pain may or may not increase, but the Uterus is steadily augmenting in size. It becomes more irritable. The Liver becomes involved and the surface of the Body assumes a yellowish Colour and occasionally Petechiae or vesicular eruptions are discovered on the Surface. Inflammation of the Uterus is a very serious disorder and does not confine itself to the parts primarily involved, being conveyed through the circulation, ravages the other [illegible] [illegible] [illegible]. Nor tissue of the body is exempt from its direful effects. Particles of morbid matter is taken up by the [illegible] and by the force of the circulation is carried to various and distant parts of the Body

[illegible] there deposited forming [illegible]
situation abscess and abnormal [illegible]
The secondary effects of this disease [illegible]
particular attention The [illegible]
sometimes functionally [illegible]
often the [illegible] disease [illegible]
-ding to some authors the vessels of the
organ is sometimes congested and [illegible]
around with coagulable lymph [illegible]
-kens in some cases that portion of the
Brain are softened and [illegible] with
cerous or purulent [illegible]
-tance The parts within the chest are fre-
-quently found to be the seat of [illegible]
[illegible]
being [illegible]
[illegible]

and absorbing the [illegible] [illegible] [illegible] [illegible] The cause of this form of the disease is very obscure, though it may originate from the violence used in extracting the Placenta, tedious labour seems to be an effective cause, Hæmorrhage also from the exhaustion it produces, retained portions of Placenta remaining and putrifying in the Uterus, Cold [illegible] [illegible], [illegible] [illegible], Contagion [illegible] of the [illegible] [illegible] [illegible] by [illegible] the [illegible] The symptoms of this disease is somewhat different. It may in many cases be extremely hard to distinguish this from the other varieties, at least in the early stage. The effect of medicine on the treat-

[illegible] in general [illegible]
[illegible] some cases all the remedies that
has ever been tried [illegible] and there is no
precise course of treatment which can
be laid down, but the most reasonable course
and one which has been found [illegible]
[illegible] is that [illegible] restorative, both to the view of supporting the
strength under the depressing influence
and of enabling the vessels of the diseased
part to throw out lymph capable of [illegible]
and of assisting the powers of life by [illegible]
other means to arrest the progress and retrieve
the consequence of the disease. In the first
part of the disease the system may [illegible]
a small extraction of blood by venesection
leaches or pulls. The patient should not have

and that is, although the Patient may [illegible]
for severe constitutional symptoms which
need our immediate attention. Yet a local
inflammation is the seat of all the trouble
and to stick to the general for treating dis-
-ease (that is remove the Cause and then
treat the Case) [illegible] your particular
attention to this lesion. The first indications
are [illegible]
[illegible] and evacuation
of the matter. If we see the Patient in the
early stage of the attack it is often possible
to arrest its progress. In order to procure
resolution, venasection may be practiced
to some extent but should the condition of
the Patient not justify [illegible] purgatives ab-
-tratives and absorbents may be used [illegible]

[illegible] be applied and with but lit-
-tle reduction of the Patients strength a bran
poultice should be placed over the bites. The most
most efficient remedy after depletion is a com-
-bination of Calomel & Opium this in many
cases has a very beneficial effect [illegible]
-thors recomend very large doses of [illegible]
[illegible] in all cases should be
touched, it may be given in one and a half
or two gr doses untill specific effect is
obtained, a little tart Antimony say the sixteenth
of a grain may be added to the Calomel to hav-
-ten its effects, which it will do to some extent
To this should be added the Opium, should
the Calomel prove too irritating, it may be
dispenced with entirely and the Opium given
alone in about one grain doses [illegible]

[illegible] in producing a termination to the skin and also giving some refreshing sleep which the generally [illegible]. Should ulceration be suspected [illegible] must be given through mouth or [illegible]. The Patient must be confined to a nutri-tious and stimulating diet. Some of the aloetic preparations are useful during convalescence to regulate the bowels and help digestion of

Malignant Puerperal Fever. [illegible] another and more deadly form of Puer-peral Fever. It is comparatively [illegible] except when the disease prevails [illegible]-demically. It may attack patients [illegible] delivery and immediately after a lapse of some days but perhaps the most frequent

Some degree of Soreness or Pain about the [illegible] The incurtion of the disease is generally marked by a [illegible] rigor or a Sence of Chilliness. The abdomen becomes Somewhat enlarged, with tympanetic Sound. The [illegible] becomes broad flabby with a thick Coating of Mucous or Creamlike incrustation. The Patient in this Condition becomes low Spirited and despondent, Predicts her dissolution and loses all intrest in Objects around her; Even her Infant She evinces no anxiety about whatever and Seldom makes any inquiry about it. The Pulse usually ranges from one hundred and thirty to one hundred and forty and [illegible] over this, Soft fluent and [illegible]

The ~~Body~~ surface of the Body [illegible]
a lurid dusky or dirty hue The Countenance
is pale and unexpressive except during
acute pain when it is anxious and [illegible]
ered with cold perspiration The mental
faculties are but little disturbed, untill
towards the termination, when it is not
uncommon for the Patient to be partially
or temporarily delirious, but never [illegible]
-lent In many cases there is a [illegible]
nervous hurry, an excitement of [illegible]
ers, with tremulous movement of features
and of the hands The Urine [illegible]
[illegible] some Chemical Change
or diminution in quantity As the dis-
-ease progresses the respiration becomes
humed or even panting The Pulse [illegible]

as the disease appears in some epidemics we can hardly conceive of a disease which presents a heavier mortality. According to the statement of Dr. Clark [illegible] three fourths of those attacked with the fever-die. It seems also that earlier the disease sets in after labour, the less is the Patient's Chance of recovery. The treatment of this disease [illegible] has been very unsatisfactory. The effect of Medicines seems to exert no beneficial or controlling influence over the disease. No remedy which has been discovered can be said to afford the Patient a reasonable Chance for recovery. Active treatment is seldom admissable, and if [illegible] is [illegible] within the first [illegible] [illegible]

to the abdomen is sometimes immediately use-
-ful and should be followed by the application
of a fomentating Cultice to the Part. Blis-
-tering the abdomen is very useful as it
affords a more extensive means for appli-
-ing Mercurials. Calomel with or without
Opium, given in large doses, is highly re-
-comended. Especially if it be given in
the first part of the disease. After the disease
has continued for sometime the Symptoms
generally indicate a tonic and Stimulent
Course. Quinine in large doses acts a
good part, a very popular Mixture is
Opium. Camphor and Capsicum aided
by turpentine by the Mouth or rectum
If diarrhear be present a Clyster of
Starch. Kino and laudanum or hyoscyami

is very good to check the discharge and allay pain. As the type of the epidemic is subject to many variations so also should our general plan of treatment in such cases vary. With a strict observance of this fact and prompt use of the remedies and means here [illegible] down will I think, afford the patient the only chance for recovery

Inguinal Hernia

Anatomy of the parts. There are three broad muscles of the abdomen viz from without inwards.— External Oblique then the Internal Oblique & last the Transversalis. In the lower part of the Aponeurosis of the Ex Oblique is an aperture which gives passage to the Spermatic cord in the male and round ligaments in the female; in the former it is situated 1/8 of an inch external to the Symphisis Pubis and about one inch in the latter external and a little above. Its direction is downwards and inwards and is triangular in shape. Upper above in three fibres diverge one below and formed by crest of Pubis. two sides of the

Triangle are the inner and outer & outer pillars or columns. Its apex is strengthened by crossing fibres which pass between the columns and are the Intercolumnar fibres.

Beneath the External is seen Internal Oblique the lower part being paler than the rest, and arched from outer part of Poupart's Ligament curves over and is inserted into pectineal line spine and crest of the Pubis. The third and deepest muscle is the Transversalis, whose lower fibres have a similar arrangement with those of the Internal Oblique — Its fibres arise from Poupart's Ligament and make the same curve leaving an arched deficiency beneath and are inserted with the External

Oblique into Pectineal line & pine and crest of the Pubis. The blended insertion being called the Conjoined Tendon; which is directly behind the External abdominal ring.

minal Canal is the distance between the Internal & External rings, and is the passage made by the descent of the Testicle from the abdomen into the scrotum, also that taken by the gut in Indirect Inguinal Hernia, (It will be best to describe the journey made by the Testicle first) The Testicle appears first at the In ring. Then (along the Inguinal canal to External into scrotum. In coming ~~thro~~ thro' the walls of the abdomen the Testicle does not pierce any structure but directs its way between the muscles along

The Inguinal canal. This canal is about 1½ or 2 inches in length has a direction downwards and inwards and is parallel with, and about ¼ or ½ of an inch above the inner ½ of Pouparts ligament.

undaries of the canal. In front is the Aponeurosis of the External Oblig. m. below Poupards ligament, above the conjoined arch and behind is the conjoined Tendon + Fascia Transversalis,

ent of the testicle. In the Foetus they are developed the the abdomen just below and in front of the Kidneys at about the fifth month of utero gestation. They begin to leave this situation and travel to the scrotum; which is generally accomplished by the seventh month of

utero gestation. It descends along the Psoas magnus muscle selecting its way piercing the thinest and weakest part of the abdominal walls beneath the conjoined arch where the muscles are deficient just above the inner 1/2 of Poupart's Ligament and beneath the external abutment of the arch ~~etc~~. where the deficiency occurs in the Transversalis & Inter Oblique — it presents itself & pushes before it the parietal peritoneum and Fascia Transversalis. The Testicle does not perforate a ~~etc~~ single tissue but passes along the Inguinal canal and consequently between the muscles and not thro' them to the triangular opening in the External Oblique. In passing towards

the conjoined arch the testicle only meets with two obsticles to prevent its escape viz the peritoneum & fascia transversalis. It pushes these before it like the finger of a glove, and they accompany the testicle to the scrotum and form a part of its investments. The peritoneum within & fascia transversalis outside of it. The testicle carries the cord after it, and it shows the rout taken by testicle. ~~Now just at the outer abutment of the conjoined arch.~~ The cord does not fill the cavity of the canal at first. but after a little the peritoneum contracts around it: where as the fascia transver

salis does not + of course there is a space unoccupied as the canal in the first place was too large for it, between the peritoneum and fascia Transversalis

Internal abdominal ring is the space between the peritoneum & muscular fascia transversalis which is unoccupied except in Hernia If the fasci Transversalis has contracted like the peritoneum (as it does not) there would be no Outer ring. (The fascia Transversalis has nothing to do with the Transversalis muscle but lies beneath it) It is a thin white fibrous sheath lying between the peritoneum and transversalis muscle. Sometimes the peritoneum does not stretch out

retains its original dimensions like the fascia transversalis; tho' this is very rare. and when it occurs is certain to produce congenital hernia. we have seen that the testicle has carried two coverings before viz peritoneum and fascia transversalis it also carries a few fibers of the conjoined arch as it passes under it in which it lies as in loops. these fibres ~~also~~ still retain their primative connection with pouparts ligment without & pectineal line within and are called the <u>cremaster muscle</u>. Now as the testicle emerges from the External ring and descends to the Scrotum it carries a thin layer of membrane with it and is called the <u>Intercolumna</u>

or Spermatic fascia. The Testicle retains all of these various investments or coverings during life. Remember that the fascia Transversalis did not contract like the peritoneum and that there is a vacant space between it and the peritoneum. This is the place that the gut escapes thro' and is termed Hernia. Hernia is the protrusion of any viscous from its containing cavity in the abdomen the small intestine are generally the ones. When the protrusion + gut only occupies the Inguinal canal it is called Bubonocele.

Hernia is divided into two kinds in the abdomen. Direct and indirect the others are varieties only.

Direct Inguinal Hernia. The knuckle

of gut presents itself at the Internal abdominal ring but the peritoneum having closed it. it has to push it thro' (between the fascia transversalis and the shrunken peritoneum) then it is by the side of the cord and its coverings but ~~be~~ ~~twen~~ inside fascia transversalis. If it should get so far as the scrotum then it is called Scrotal Hernia; but if not and lies in the Inguinal canal it is called Bubonocele.

...ings of Indirect Inguinal Hernia—

From within outwards, Peritoneum Transversalis Fascia, Cremaster muscle Intercolumna Fascia Superficial Fascia and lastly Integument or Skin—

Nº 6

ect Inguinal Hernia is When
the gut does not follow the
Inguinal canal but bulges
directly Thro' the External abd-
ominal ring; Then it pushes
before it peritoneum transver-
salis fascia & conjoined tendon
Thro' the External ring. This vari
ety is however very rare; The
conjoined tendon being so very
strong as not to yield readily.
It can occur only as the ef-
fect of a violent strain.—

minal Fossa is divided ~~in~~ ~~divided~~
by the Umbilical ligament
of the Bladder
into two parts. If a patient
dies of Hernia and an examina
tion you find an opening in
the peritoneum on the inner
side of the Umbilical ligament

* and Columna fascia

you may be sure that it was
Direct Inguinal Hernia, if ~~for~~
the Gut if the opening in
the peritoneum be on the
outer side of the umbilical lig-
ament it must be Oblique
Inguinal Hernia or
Femaral Hernia.

Mode of ascertaining the existence
of Hernia. The disease is
commonly produced by straining
efforts causing contraction
of the muscular walls of
the abdomen which forces
a knuckle of gut thro' the
ring (generally the inguinal)
or it may be caused by pre-
ternatural weakness of the
lower part of the walls of
the belly. Then very slight strain

ing may produce it.

Symptoms – The patient is conscious of slight pain or uneasiness also of slight swelling in the groin. The swelling or tumor disappears on lying down but reappears on his resuming the erect posture. This tumor will be seen to mean an impulse or impulse when he coughs. – This attracts but little notice at first and occasions little or no inconvenience, it may be sensible only of a weakness in the region which is however relieved by pressure. This stage of the disease might be mistaken for an enlarged Lymphatic gland, but may be distinguished by the enlarged

Gland not disappearing on lying down nor does it recede any impulse from coughing.

Essential diagnosis between Direct and Indirect Inguinal Hernia. First in Direct Hernia the gut pushes the conjoined tendon before it and as it is very strong it does not yield so as to allow the Hernia to attain the great size that the Indirect same times does nor is it so extensive and is mostly of a globular shape. This tumor recedes on impulse from coughing &c. Indirect. The gut comes along the Inguinal canal thro' the External abdominal ring. There is

some difficulty in ascertaining its existance as it lies behind the aponeurosis of the External Oblique. In this variety the tumor inclines towards the middle line; whilst in the Direct its inclination is outwards from the middle line and lastly in Indirect Hernia the gut descends in front of the cord and on outerside of the ring, whereas in Direct ~~the gut~~ the cord is in front and to outerside. Coverings of Direct H Peritoneum Transversalis Fascia conjoined tendon Intercolumna and Superficial Fascia and Integument. This Hernia may ~~burst~~ burst thro' the conjoined tendon instead of pushing it be

Continuation of differential diagnosis from page 16. Scrotal Hernia from Varicocele. Hydrocele. Orchitis. From the first by the feel of the enlarged veins and it not receiving an impulse from coughing; and also by the increase in size of the tumor X by the application of the Trefs or other pressure. From the second, by the manner in which the tumor began to enlarge from below upwards whereas in Hernia it is the reverse; and also from by the placing the scrotum between you and a light, when the light can be seen thro' it. also by its non disappearance on the patient's lying down. From the last by its hardness color and great pain

pose it. — In applying a Truss for Indirect Inguinal Hernia it must be so placed as to reach a little above the Internal ring and extend along the Inguinal canal inward (of course it will have to be oblong and rather longer and narrower than for the other variety.
The material out of which it is made should be firm and unyielding but not too hard and heavy also impervious to the perspiration. The best is some light kind of wood or still better condensed Gum elastic. The Spring should not be too strong but just suffi

cient to retain the gut in place producing no unnecessary pressure. It should be well covered with oil silk to preserve it, ~~and~~ The spring being first covered with some buckskin or other soft material to make it easy to patient. You should use a strap to confine it down if necessary and one over the shoulders to prevent it from slipping too low if it should be required. (The one to hold it down should pass under the perineum and button in front to the block. You should be certain that the Instrument is a good fit

in every respect or it should not be used—or it will do harm Suppose you apply the Truss over the Ex ring in Indirect Inguinal Hernia you would be sure to have Bubonocele or suppose it was only applied over the Internal ring and not along the canal as well there would be less safety and certainty of making a radical cure. In the direct the pad is placed over the Ex ring and it should be given ear in shape

In reduc Hernia, The patient should be placed on his back with his shoulders and hips elevated; the Thighs flex and legs bent on Thighs and rotated outwards

so as to relax the muscles.— Then the Surgeon should take the scrotum or tumor in his hand and make gentle pressure at the same time push it gently up in place which is known by a gurgling sound. The forma-~~tion~~tion of an adhesion of the gut to the scrotum preventing ~~it~~ the former from returning to place is a frequent tho' not an alarming symptom.* But the constriction or strangulation of the gut is a very alarming state of affairs. The former can not be permanently cured but is treated with with a 16 oz Truss† to hold up the the tumor

* It not too extensive if there be strangulation it may may be broken up and the parts returned.

the latter requires much more earnest attention. You should attempt to relax the spasm which is produced by a contraction of some of the coverings of the gut either in the canal or at the rings.
First you attempt to restore the gut by Taxis; if this does not prove effectual in 1/2 an hour quit it and try relaxing remedies Tartar Emet ic Blood letting Opium Narcotics generally then the Tobacco enema if all the fail the operation must be performed.
~~The Operation~~ Hard faecal matter may cause strangulation. It is known by violent pain in the belly and groin also by colicy

pains attended by constipation (in
tractable) The pains are very severe
and bends the patient almost
double. He has a desire to pass
his faeces but is not able to
do so on account of the con-
striction. The peristaltic motion
is reversed and the faeces
are vomited up. These symp
toms continue until mor-
tification takes place when
he is relieved by death of the
parts and his death follows
very speedily from peritonitis
this produced by the escape
of the contents of the bowels
into the peritoneum. When
mortification takes place the
patient puts no pain his body
is covered with a clammy

sweat fable pulse & great debility followed by Death — Dr Physic says it is his invariable rule to examine (when called to a patient suffering from colicy pains) and if Hernia is not the cause having had several in whom it was the cause and a number of patients with Hernia who complained of colic —
When a patient presents himself with Hernia return the gut and Rup it in place with a propperly ~~add~~ adjusted Truss and then the healthy functions of the parts are restored, The Operation for strangulated Hernia is performed in the following manner —
The patient should be placed

on a table on his back in the same position as in the operation Lithotomy his hands tied to his feet &c. The Surgeon cuts thro' the structures which cover ~~on a grooved director~~ (same say not the peritoneum but it should be as there is ~~[illegible]~~ inconvenience by not doing so and the danger is not increased by it and carries his finger up to the seat of constriction and relieves it by an incision the one sixth of an inch in length. If the constriction is at the Internal ring you will have to cut thro' the aponeurosis of External Oblique muscle and as the Epigastric artery runs along the

outer edge of the ring by cuting up parallel with the linea alba will miss details of the Operation. The parts ~~is~~ are to be cleanly shaved of hair and the skin made tense an incission is made three or four ~~inches~~ inches long ~~thro~~ thro' the integuments along the axis of the tumor from above its neck. The ~~suc-~~ ~~cessive~~ successive layers are pinched up with a pair of forceps and cut with the knife held horizontally this opening is enlarged to the size of that in the skin by introducing a groved director. when you get to the sack which can be told by its color and by a knowledge of the anatomy of the parts & knowing what you

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have cut thro' now you very carefully elevate a portion of it in the same way as the rest only use more care and not so extensively, just enough to admit of the introduction of the fore finger and blunt pointed knife flat upon it when both are passed up to the constriction and it is relieved by turning ~~up~~ up the edge of the knife so as to make the incission directly upwards then the gut is returned and patient kept at rest and the wound allowed to heal. — After his recovery a suitable truss must be worn thro' life

Respectfully
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